

10/509,751

(FILE 'HOME' ENTERED AT 18:18:59 ON 23 MAY 2006)

FILE 'REGISTRY' ENTERED AT 18:19:11 ON 23 MAY 2006

L1 STRUCTURE UPLOADED

=> d l1

L1 HAS NO ANSWERS

L1 STR

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

Structure attributes must be viewed using STN Express query preparation.

=> s l1

SAMPLE SEARCH INITIATED 18:19:47 FILE 'REGISTRY'

SAMPLE SCREEN SEARCH COMPLETED - 161344 TO ITERATE

1.2% PROCESSED 2000 ITERATIONS 2 ANSWERS
INCOMPLETE SEARCH (SYSTEM LIMIT EXCEEDED)
SEARCH TIME: 00.00.02

FULL FILE PROJECTIONS: ONLINE **INCOMPLETE**
BATCH **INCOMPLETE**

PROJECTED ITERATIONS: 3203235 TO 3250525

PROJECTED ANSWERS: 2464 TO 3988

L2 2 SEA SSS SAM L1

=> s l1 full

FULL SEARCH INITIATED 18:19:55 FILE 'REGISTRY'

FULL SCREEN SEARCH COMPLETED - 3236050 TO ITERATE

24.0% PROCESSED 777770 ITERATIONS 389 ANSWERS

30.9% PROCESSED 1000000 ITERATIONS (1 INCOMPLETE) 470 ANSWERS
INCOMPLETE SEARCH (SYSTEM LIMIT EXCEEDED)
SEARCH TIME: 00.00.29

FULL FILE PROJECTIONS: ONLINE **INCOMPLETE**
BATCH **INCOMPLETE**

PROJECTED ITERATIONS: 3236050 TO 3236050

PROJECTED ANSWERS: 1404 TO 1636

L3 470 SEA SSS FUL L1

=> fil caplus

| COST IN U.S. DOLLARS | SINCE FILE ENTRY | TOTAL SESSION |
|----------------------|------------------|---------------|
| FULL ESTIMATED COST | 167.38 | 167.59 |

FILE 'CAPLUS' ENTERED AT 18:20:33 ON 23 MAY 2006

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FILE COVERS 1907 - 23 May 2006 VOL 144 ISS 22

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=> s l3/prep

122 L3

3471663 PREP/RL

L4 67 L3/PREP

(L3 (L) PREP/RL)

=> d 1-67 bib abs

L4 ANSWER 1 OF 67 CAPLUS COPYRIGHT 2006 ACS on STN

AN 2006:194231 CAPLUS

DN 144:254598

TI Catalysts for olefin polymerization, process for production of olefin
(co)polymers, novel transition metal compounds, and process for production
of transition metal compounds

IN Michiue, Kenji; Onda, Mitsuhiko; Matsui, Shigekazu; Matsuura, Sadahiko;
Endo, Koji; Mitani, Makoto; Fujita, Terunori

PA Mitsui Chemicals, Inc., Japan

SO PCT Int. Appl., 155 pp.

CODEN: PIXXD2

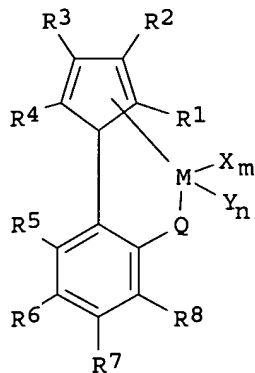
DT Patent

LA Japanese

FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|---|------|----------|-----------------|----------|
| PI | WO 2006022355 | A1 | 20060302 | WO 2005-JP15485 | 20050825 |
| | W: | | | | |
| | AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, | | | | |
| | CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, | | | | |
| | GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KP, KR, KZ, | | | | |
| | LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, | | | | |
| | NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, | | | | |
| | SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, | | | | |
| | ZA, ZM, ZW | | | | |
| | RW: | | | | |
| | AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, | | | | |
| | IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, | | | | |
| | CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, | | | | |
| | GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, | | | | |
| | KG, KZ, MD, RU, TJ, TM | | | | |
| PRAI | JP 2004-247736 | A | 20040827 | | |
| | JP 2004-247737 | A | 20040827 | | |
| | JP 2005-20918 | A | 20050128 | | |
| | JP 2005-20919 | A | 20050128 | | |

GI



I

AB The catalysts comprise (A) a transition metal compound I [M = Group 4-6 transition metal atom of the periodic table; two of R1-R4 which are

adjacent to each other and the carbon atoms to which the two are bonded are united to form a ring; the others of R1-R4, R5-R8, X = H, halo, (un)halogenated hydrocarbon group, O-containing group, and N-containing group; Q = O, S, NRA, PRb; Ra, Rb = H, hydrocarbon group; Y = neutral ligand having an electron-donating group; m is a number satisfying the valence of M; n = 0-3] and (B) ≥ 1 compound selected from among (B-1) organometallic compds., (B-2) organoaluminum oxy compds., and (B-3) compds. capable of reacting with the compound (A) to form an ion pair. The catalysts are excellent in olefin polymerization performance and can give polyolefins having excellent properties. Methods for preparation of I with high purity and improved yield are provided. Thus, ethylene was polymerized in the presence of (2-(inden-1'-yl)-4,6-di-tert-butyl-C₆H₄O)TiCl₂, triisobutylaluminum, and triphenylcarbenium tetrakis(pentafluorophenyl)borate to give polyethylene with Tm 112.9°.

RE.CNT 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 2 OF 67 CAPLUS COPYRIGHT 2006 ACS on STN
AN 2006:68115 CAPLUS
DN 144:331512
TI Palladium-Catalyzed Pathways to Aryl-Substituted Indenes: Efficient Synthesis of Ligands and the Respective ansa-Zirconocenes
AU Izmer, Vyatcheslav V.; Lebedev, Artyom Y.; Nikulin, Mikhail V.; Ryabov, Alexey N.; Asachenko, Andrei F.; Lygin, Alexander V.; Sorokin, Denis A.; Voskoboynikov, Alexander Z.
CS Department of Chemistry, Moscow State University, Moscow, 119899, Russia
SO Organometallics (2006), 25(5), 1217-1229
CODEN: ORGND7; ISSN: 0276-7333
PB American Chemical Society
DT Journal
LA English
AB Substituted 4-/7-halo-1H-indenes and 5-methyl-3-bromo-4-/6H-cyclopenta[b]thiophenes are convenient starting materials for Suzuki-Miyaura, Negishi, and Murahashi protocols to give the corresponding aryl-substituted indenenes and cyclopenta[b]thiophenes of importance for further synthesis of ansa-metalloenes. Alternatively, (2-methyl-1H-inden-4-yl)boronic acid and (1-methoxy-2-methyl-2,3-dihydro-1H-inden-4-yl)boronic acid as well as the resp. organozinc and -Mg reagents can be used for synthesizing aryl-substituted indenenes via the Pd-catalyzed reactions with aryl halides. These synthetic methods have a very broad scope to afford libraries of aryl-substituted indenenes. Finally, synthesis and structure characterization of several representative chiral ansa-zirconocenes, potentially useful as components of highly active and stereoselective olefin polymerization catalysts, were performed.

RE.CNT 130 THERE ARE 130 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 3 OF 67 CAPLUS COPYRIGHT 2006 ACS on STN
AN 2005:1242659 CAPLUS
DN 144:6579
TI Catalytic cyclocondensation process for producing indenol esters or ethers from an α -substituted cinnamic aldehyde acetal or or an acylal
IN Womack, Gary Bernard; Snowden, Roger Lesile; Mosimann, Herve
PA USA
SO U.S. Pat. Appl. Publ., 6 pp.
CODEN: USXXCO
DT Patent
LA English

FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|----|---------------|---|----------|-----------------|----------|
| PI | US 2005261513 | A1 | 20051124 | US 2004-849559 | 20040518 |
| | WO 2005113473 | A2 | 20051201 | WO 2005-IB1474 | 20050510 |
| | WO 2005113473 | A3 | 20060413 | | |
| | W: | AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, | | | |

NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK,
 SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU,
 ZA, ZM, ZW
 RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM,
 AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK,
 EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT,
 RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML,
 MR, NE, SN, TD, TG

PRAI US 2004-849559 A 20040518

OS CASREACT 144:6579; MARPAT 144:6579

AB A process is described for making indenol esters or ethers (e.g.,
 1-methoxy-2-methyl-1H-indene; b.p. 32-43°/0.07 mbar) from an
 α -substituted cinnamic aldehyde derivative such as an acetal (e.g.,
 3,3-dimethoxy-2-methyl-1-phenyl-1-propene) or an acylal in the presence of
 catalysts which are strong mineral acids, sulfonic acids, acidic zeolites,
 or Lewis acids (e.g., ferric chloride).

L4 ANSWER 4 OF 67 CAPLUS COPYRIGHT 2006 ACS on STN

AN 2005:1196425 CAPLUS

DN 143:460614

TI Heterocyclic substituted metallocene compounds for olefin polymerization

IN Voskoboynikov, Alexander Z.; Lebedev, Artyom Y.; Izmer, Vyatcheslav V.;
 Ryabov, Alexey N.; Nikulin, Mikhail V.; Canish, Jo Ann M.

PA ExxonMobil Chemical Patents Inc., USA

SO PCT Int. Appl., 286 pp.

CODEN: PIXXD2

DT Patent

LA English

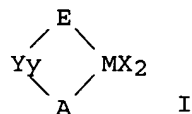
FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|----|--|------|----------|-----------------|----------|
| PI | WO 2005105864 | A1 | 20051110 | WO 2005-US8301 | 20050311 |
| | W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW | | | | |
| | RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG | | | | |

US 2005261449 A1 20051124 US 2005-78920 20050311

PRAI US 2004-562861P P 20040416

GI



AB This invention relates to metallocene compds. represented by formula (I):
 wherein M is a group 3, 4, 5 or 6 transition metal atom, or a lanthanide
 metal atom, or actinide metal atom; E is an indenyl ligand that is
 substituted in any position of the indenyl ligand with at least one aromatic
 heterocyclic substituent or pseudoarom. heterocyclic substituent that is
 bonded to the indenyl ring through a nitrogen or phosphorous ring
 heteroatom; Y is an optional bridging group that is bonded to E and A, and
 is present when y is one and absent when y is zero; y is zero or one; X
 are, independently, univalent anionic ligands. The E in formula I may be
 substituted with 0, 1, 2, 3, 4, 5 or 6 R groups, where each R is,
 independently, a hydrocarbyl, substituted hydrocarbyl, halocarbyl,
 substituted halocarbyl, silylcarbyl, substituted silylcarbyl,
 germlylcarbyl, or substituted germlylcarbyl substituent, and optionally, two
 or more adjacent R substituents may join together to form a substituted or

unsubstituted, saturated, partially unsatd., or aromatic cyclic or polycyclic substituent; A is a substituted or unsubstituted cyclopentadienyl ligand, a substituted or unsubstituted heterocyclopentadienyl ligand, a substituted or unsubstituted indenyl ligand, a substituted or unsubstituted heteroindenyl ligand, a substituted or unsubstituted fluorenyl ligand, a substituted or unsubstituted heterofluorenyl ligand, or other mono-anionic ligand, or A may, independently, be defined as E. This invention further relates to a catalyst system comprised of the above metallocenes (e.g., bis(η^5 -2-(pyrrol-1-yl)indenyl)zirconium dichloride) combined with an activator (e.g., MAO), and to a process to polymerize unsatd. monomers (e.g., ethylene and 1-octene) using such catalyst system.

RE.CNT 12 THERE ARE 12 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 5 OF 67 CAPLUS COPYRIGHT 2006 ACS on STN

AN 2005:1103824 CAPLUS

DN 143:387558

TI Process for polymerizing 1-hexene or higher alpha-olefins

IN Resconi, Luigi; Ciaccia, Eleonora; Morhard, Friederike; Pellegatti, Giampaolo

PA Basell Polyolefine GmbH, Germany

SO PCT Int. Appl., 28 pp.

CODEN: PIXXD2

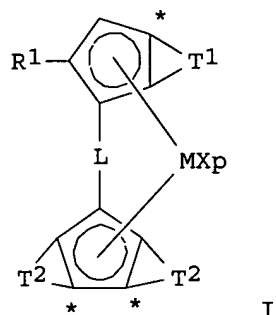
DT Patent

LA English

FAN.CNT 3

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|---|------|----------|-----------------|----------|
| PI | WO 2005095474 | A1 | 20051013 | WO 2005-EP2481 | 20050308 |
| | W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW | | | | |
| | RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG | | | | |
| PRAI | EP 2004-101020 | A | 20040312 | | |
| | US 2004-554110P | P | 20040317 | | |
| | EP 2004-104351 | A | 20040909 | | |
| | US 2004-610064P | P | 20040915 | | |

GI



AB A process for preparing a polymer containing derived units of one or more alpha olefins of formula $\text{CH}_2\text{:CHW}$ (W is a C3-C10 hydrocarbon radical and optionally from 0 to 81% by mol of derived units of propylene or 1-butene), comprises the steps of: contacting under polymerization conditions one or more alpha olefins of formula $\text{CH}_2\text{:CHW}$ and optionally propylene or 1-butene in the presence of a catalyst system obtainable by contacting:

(a) a metallocene compound of formula (I) (M is a transition metal atom, X

is H or halogen atom, or hydrocarbon, L is divalent hydrocarbon radical, T1 is C(R5):C(R4)C(R3):C(R2)* or SC(R6):C(R7)*,, T2 is CH:C(R8)C(R8)CH:* or SC(R9):CH*, and R1to R8 are hydrocarbon radicals); and (b) an alumoxane or a compound capable of forming an alkyl metallocene cation. Thus, poly(1-hexene) was produced by using a catalyst system containing MAO, TIBA, and rac-dimethylsilyl[(2,4,7-trimethyl-1-indenyl)-7-(2,5-dimethylcyclopenta[1,2-b:4,3-b']-dithiophene)] zirconium di-Me.

RE.CNT 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 6 OF 67 CAPLUS COPYRIGHT 2006 ACS on STN

AN 2005:1103820 CAPLUS

DN 143:387555

TI Catalyst system for the polymerization of olefin

IN Resconi, Luigi; Moscardi, Gilberto; Fait, Anna

PA Basell Polyolefine GmbH, Germany

SO PCT Int. Appl., 20 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 3

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|----|--|------|----------|-----------------|----------|
| PI | WO 2005095468 | A2 | 20051013 | WO 2005-EP2479 | 20050308 |
| | W: | | | | |
| | AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW | | | | |
| | RW: | | | | |
| | BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG | | | | |

PRAI EP 2004-101020 A 20040312

US 2004-554110P P 20040317

AB Title catalyst system solution obtainable by a process comprising the following steps: (I) contacting a solution of methylalumoxane in an aromatic solvent (solvent A) with a solution of one or more organoaluminum in a solvent (solvent B), or a solution of one or more alumoxanes different from methylalumoxane in a solvent (solvent b); (II) when solvent B is an aromatic solvent or if solvent B has a b.p. lower than solvent A add to the solution formed in step (I) an aliphatic solvent (solvent C) having a b.p. higher than solvent A and solvent B; or (III) solubilizing a metallocene compound in the solution obtained in step (I) or in step (II); and (IV) substantially removing solvent A or solvent A and solvent B from the solution. Thus, a metallocene catalyst system for polymerization of 1-hexene was produced by mixing 3.6 mL of TIBA/isododecane with 2.15 mL of 10% MAO/toluene, and 15 mg of rac-dimethylsilyl[(2,4,7-trimethyl-1-indenyl)-7-(2,5-dimethylcyclopenta[1,2-b:4,3-b']-dithiophene)]zirconium di-Me, and removing solvents by distillation at reduced pressure.

L4 ANSWER 7 OF 67 CAPLUS COPYRIGHT 2006 ACS on STN

AN 2005:1039878 CAPLUS

DN 143:477719

TI Synthesis of indenenes by the palladium-catalyzed carboannulation of internal alkynes

AU Zhang, Daohua; Yum, Eul Kgun; Liu, Zhijian; Larock, Richard C.

CS Department of Chemistry, Iowa State University, Ames, IA, 50011, USA

SO Organic Letters (2005), 7(22), 4963-4966

CODEN: ORLEF7; ISSN: 1523-7060

PB American Chemical Society

DT Journal

LA English

AB A number of highly substituted indenenes have been prepared in good yields by treating functionally substituted aryl halides with various internal alkynes in the presence of a palladium catalyst. The reaction is believed to proceed by regioselective arylpalladation of the alkyne and subsequent

nucleophilic displacement of the palladium in the resulting vinylpalladium intermediate.

RE.CNT 36 THERE ARE 36 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 8 OF 67 CAPLUS COPYRIGHT 2006 ACS on STN
AN 2005:734551 CAPLUS
DN 143:347478
TI C1-symmetric heterocyclic zirconocenes as catalysts for propylene polymerization. 2. ansa-zirconocenes with linked diethienocyclopentadienyl-substituted indenyl ligands
AU Resconi, Luigi; Guidotti, Simona; Camurati, Isabella; Frabetti, Riccardo; Focante, Francesca; Nifant'ev, Ilya E.; Laishevtsev, Ilya P.
CS Basell Polyolefins, Centro Ricerche G. Natta, Ferrara, I-44100, Italy
SO Macromolecular Chemistry and Physics (2005), 206(14), 1405-1438
CODEN: MCHPES; ISSN: 1022-1352
PB Wiley-VCH Verlag GmbH & Co. KGaA
DT Journal
LA English
AB Sixteen C1-sym. zirconocene and one hafnocene complexes bearing the 2,5-R²-7H-cyclopenta[1,2-b:4,3-b']dithiophene ligand (R = H, Me, Et, Ph) linked to a substituted indenyl ligand have been synthesized and tested in propylene polymerization. Most of the C1-sym. zirconocenes of this type are highly active in propylene polymerization at low MAO/Zr ratios and produce poly(propylene)s (PP) in a broad range of isotacticity and m.ps. The mol. weight and crystallinity of the PPs are strongly dependent upon the type of substituents on the indenyl moiety: PPs with T_m between 75 and 156°C and viscosity average mol. wts. between 100 000 and 400 000 have been obtained at 50-70°C in liquid propylene.

RE.CNT 47 THERE ARE 47 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 9 OF 67 CAPLUS COPYRIGHT 2006 ACS on STN
AN 2005:590467 CAPLUS
DN 143:230256
TI Novel high and ultrahigh molecular weight poly(propylene) plastomers by asymmetric hafnocene catalysts
AU Cobzaru, Cecilia; Deisenhofer, Sandra; Harley, Andrew; Troll, Carsten; Hild, Sabine; Rieger, Bernhard
CS Inorganic Chemistry II, Department of Material Science and Catalysis, University of Ulm, Ulm, D-89069, Germany
SO Macromolecular Chemistry and Physics (2005), 206(12), 1231-1240
CODEN: MCHPES; ISSN: 1022-1352
PB Wiley-VCH Verlag GmbH & Co. KGaA
DT Journal
LA English
AB The novel asym. ansa-complexes [1-(9-n⁵-fluorenyl)-2-(2,5,7-trimethyl-indenyl)ethane]hafnium dichloride (7a) and [1-(9-n⁵-fluorenyl)-2-(2,4,6-trimethyl-indenyl)ethane]hafnium dichloride (7b) were prepared and used as catalysts for propylene homopolymn. reactions after in situ activation. The synthetic route allows to sep. the 4,6- and 5,7-substituted ligand isomers before the complexation step. The orientation of the Me groups to the "front" (4,6) or to the "back" (5,7) of the tetrahedral hafnocene dichloride species influences their performances in polymerization reactions. Whereas hafnocene (7b) which bears tri-Me substitution at 2,4,6-positions of the indenyl moiety exhibits only moderate activity, the 2,5,7-tri-Me substituted structure (7a) produces isotactic poly(propylene)s with high mol. wts. (up to η_{inh} . Mw = 9.0 + 105 g · mol⁻¹) and high activities [up to 3.2 + 105 kg of PP (mol Hf + h)⁻¹]. A comparative anal. of polymerization data and mech. behavior of 7a, and previously reported 6,7-indenyl substituted complex 6b are reported.

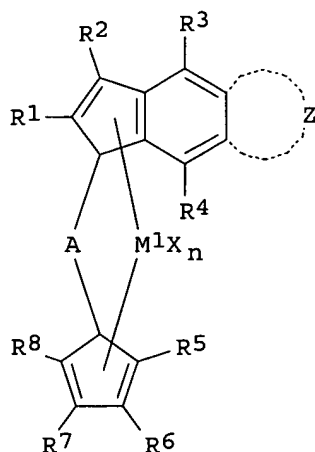
RE.CNT 28 THERE ARE 28 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 10 OF 67 CAPLUS COPYRIGHT 2006 ACS on STN
AN 2005:564676 CAPLUS
DN 143:97802
TI Organometallic transition metal compound, biscyclopentadienyl ligand system, catalyst system and preparation of polyolefins

IN Okumura, Yoshikuni; Nifant'ev, Ilya; Elder, Michael; Ivchenko, Pavel;
 Bagrov, Vladimir
 PA Basell Polyolefine G.m.b.H., Germany
 SO PCT Int. Appl., 61 pp.
 CODEN: PIXXD2
 DT Patent
 LA English
 FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|--|------|----------|------------------|----------|
| PI | WO 2005058916 | A2 | 20050630 | WO 2004-EP13827 | 20041206 |
| | WO 2005058916 | A3 | 20051103 | | |
| | W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG | | | | |
| | DE 10358082 | A1 | 20050714 | DE 2003-10358082 | 20031210 |
| PRAI | DE 2003-10358082 | A | 20031210 | | |
| | US 2004-541668P | P | 20040203 | | |

OS MARPAT 143:97802
 GI



I

AB The bis(cyclopentadienyl)-type metallocene catalysts for olefin polymerization with the general structure I were synthesized, where M1 = Group 3-6 elements or lanthanide, X = , an organic or inorg. radical, n = 1-4, Z = a divalent organic C1-40 group having a ring size of 4-12 atoms, R1, R2, R5 and R6 = H or C1-40 organic radical, R3 and R4 = H, halogen or C1-40 organic radical, R7 and R8 = H, halogen or C1-40 organic radical and can form monocyclic or polycyclic rings containing 1-40 carbons, Si, Ge, N, P, O, S, Se or Te heteroatoms. Thus, propylene was polymerized in the presence of 405 mg (0.206 mmol) dimethylsilanediyl(6-methyl-4-phenyl-1,2,3,5-tetrahydro-s-indacen-7-yl)[2-isopropyl-4-(4'-tert-butylphenyl)-1-indenyl]zirconium dichloride and 4.33 mmol MAO at 30-65° for 75 min to produce 3.5 kg polypropylene with the activity of 3.9 kg PP/g·h, Mw 548 and Tm 157.6°.

L4 ANSWER 11 OF 67 CAPLUS COPYRIGHT 2006 ACS on STN
 AN 2005:511308 CAPLUS
 DN 143:133151
 TI Synthesis and photoluminescence study of benz[f]indene derivatives
 AU Kim, Do Han; Lee, Jung A.; Son, Seung Uk; Chung, Young Keun; Choi, Cheol Ho
 CS Department of Chemistry, College of Natural Sciences, Seoul National

University, Seoul, 151-747, S. Korea
SO Tetrahedron Letters (2005), 46(27), 4627-4631
CODEN: TELEAY; ISSN: 0040-4039
PB Elsevier B.V.
DT Journal
LA English
AB The synthesis and optical properties of a series of benz[f]indenes were studied as new building blocks for electronic and optoelectronic materials.

RE.CNT 33 THERE ARE 33 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 12 OF 67 CAPLUS COPYRIGHT 2006 ACS on STN
AN 2005:490564 CAPLUS
DN 143:172428
TI Stepwise Delivery of Two Methoxy Groups of Arylaldehyde Acetals across the Phenyl Ring. Vacant Site-Controlled Palladium Catalysis
AU Nakamura, Itaru; Mizushima, Yuya; Gridnev, Ilya D.; Yamamoto, Yoshinori
CS Department of Chemistry, Graduate School of Science, Tohoku University, Sendai, 980-8578, Japan
SO Journal of the American Chemical Society (2005), 127(27), 9844-9847
CODEN: JACSAT; ISSN: 0002-7863
PB American Chemical Society
DT Journal
LA English
OS CASREACT 143:172428
AB A new catalytic cyclization of o-alkynylbenzaldehyde acetals 1 to the functionalized indenenes 2 was found to be strictly controlled by the number of triphenylphosphine ligands on the Pd catalyst. Only complexes with three available coordination sites on Pd catalyze this reaction. Mechanistic study suggests that π -coordination of Pd to the benzene ring is a key step controlled by the number of vacant coordination sites.

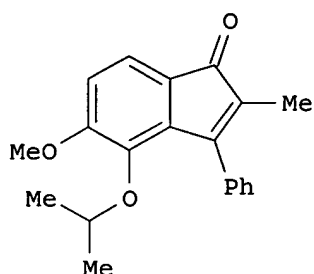
RE.CNT 23 THERE ARE 23 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 13 OF 67 CAPLUS COPYRIGHT 2006 ACS on STN
AN 2005:277468 CAPLUS
DN 142:481811
TI Towards benign synthesis of indenenes from indanones: zinc-mediated allylation of ketones in aqueous media as a source of substituted indenyl ligand precursors
AU Silver, Satu; Leppanen, Ann-Sofie; Sjoeholm, Rainer; Penninkangas, Antti; Leino, Reko
CS Department of Organic Chemistry, Abo Akademi University, Turku, 20500, Finland
SO European Journal of Organic Chemistry (2005), (6), 1058-1081
CODEN: EJOCFK; ISSN: 1434-193X
PB Wiley-VCH Verlag GmbH & Co. KGaA
DT Journal
LA English
OS CASREACT 142:481811
AB Substituted indenenes are valuable ligand precursors for transition-metal complexes. Previously, most of the methods employed for the preparation of alkyl-substituted indenenes have involved the use of air-sensitive organometallic lithium or Grignard reagents, often in combination with expensive metal catalysts. An approach to the synthesis of 2- and 3-allyl-substituted indenenes by employing a simple, environmentally benign organometallic zinc-mediated Barbier-type allylation of 1- and 2-indanones in aqueous media is reported. A large series of achiral and racemic indenyl ligand precursors have been prepared in variable yields by reacting substituted and unsubstituted indanones with allyl-, crotyl-, and cinnamyl halides using metallic zinc as the mediating metal in THF/NH₄Cl aq followed by acid-catalyzed dehydration. The method described is applicable also for indanones containing unprotected halide- and hydroxyl substituents. As an example of extension of the approach, some indenenes have been further hydrosilylated with achiral silanes and disilanes in the presence of Karstedt's catalyst to provide silylalkyl-substituted indenenes and bis(indenenes). Hydrosilylation with a chiral silane, (+)-(R)-methyl-1-naphthalenyl-phenylsilane, provided access to chirally substituted

indenes.

RE.CNT 110 THERE ARE 110 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 14 OF 67 CAPLUS COPYRIGHT 2006 ACS on STN
AN 2005:196434 CAPLUS
DN 142:411026
TI Tandem catalysis: a ring-closing metathesis followed by dehydrogenative oxidation to afford substituted indenones
AU Van Otterlo, Willem A. L.; Cohanis, E. Mabel; Panayides, Jenny-Lee; De Koning, Charles B.; Fernandes, Manuel A.
CS Molecular Sciences Institute, School of Chemistry, University of the Witwatersrand, Johannesburg, S. Afr.
SO Synlett (2005), (3), 501-505
CODEN: SYNLES; ISSN: 0936-5214
PB Georg Thieme Verlag
DT Journal
LA English
OS CASREACT 142:411026
GI

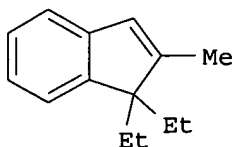


I

AB Grubbs second generation catalyst converted substituted 1-(2-propenylphenyl)prop-2-en-1-ols into substituted indenols or indenones, e.g., I, depending on the reaction conditions employed. The formation of indenones represents an example of a tandem ruthenium-mediated ring-closing metathesis-dehydrogenative oxidation reaction.

RE.CNT 48 THERE ARE 48 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 15 OF 67 CAPLUS COPYRIGHT 2006 ACS on STN
AN 2005:126895 CAPLUS
DN 142:355021
TI Low-valent Nb(III)-mediated synthesis of 1,1,2-trisubstituted-1H-indenes from aliphatic ketones and aryl-substituted alkynes
AU Obora, Yasushi; Kimura, Masahiro; Tokunaga, Makoto; Tsuji, Yasushi
CS Catalysis Research Center, Division of Chemistry, Graduate School of Science, Hokkaido University, and CREST, Japan Science and Technology Corporation (JST), Sapporo, 001-0021, Japan
SO Chemical Communications (Cambridge, United Kingdom) (2005), (7), 901-902
CODEN: CHCOFS; ISSN: 1359-7345
PB Royal Society of Chemistry
DT Journal
LA English
OS CASREACT 142:355021
GI



I

AB A variety of 1,1,2-trisubstituted-1H-indenes, e.g., I, were synthesized by the reaction of aliphatic ketones with aryl-substituted alkynes mediated NbCl₃(DME) in 1,2-dichloroethane under reflux conditions. The indenenes were obtained in good yields.

RE.CNT 30 THERE ARE 30 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 16 OF 67 CAPLUS COPYRIGHT 2006 ACS on STN

AN 2005:124940 CAPLUS

DN 142:373930

TI Synthesis and molecular structures of zirconium and hafnium complexes bearing dimethylsilandiyl-bis-2,4,6-trimethylindenyl and dimethylsilandiyl-bis-2-methyl-4,6-diisopropylindenyl ligands

AU Izmer, Vyacheslav V.; Sorokin, Denis A.; Kuz'mina, Lyudmila G.; Churakov, Andrei V.; Howard, Judith A. K.; Voskoboinikov, Alexander Z.

CS Department of Chemistry, Moscow State University, Moscow, 119899, Russia

SO Journal of Organometallic Chemistry (2005), 690(4), 1067-1079

CODEN: JORCAI; ISSN: 0022-328X

PB Elsevier B.V.

DT Journal

LA English

OS CASREACT 142:373930

AB Zirconium and hafnium ansa-complexes containing 2,4,6-trialkyl-substituted indenyl fragments were prepared and structurally characterized. Mixts. of rac- and meso-Me₂Si(2-Me-4,6-R₂C₉H₃- η 5)2MCl₂ (R = Me, iPr; M = Zr, Hf) were obtained by a treatment of MCl₄ by dilithium salts of the resp. bis(2,4,6-trialkylindenyl)dimethylsilanes in toluene. Alternatively, better yields of the same complexes can be obtained by the reaction between metal tetrachlorides and indenyl-tin derivs. 1,1'-(Et₃Sn)₂-Me₂Si(2-Me-4,6-R₂C₉H₃) gave the desired ansa-metalloenes. All rac- and meso-complexes of Zr and Hf were isolated in an anal. pure form, and six of these ansa-metalloenes were characterized by x-ray crystal structure anal.

RE.CNT 19 THERE ARE 19 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 17 OF 67 CAPLUS COPYRIGHT 2006 ACS on STN

AN 2004:1059366 CAPLUS

DN 142:38681

TI Bisindenyl zirconocene complexes as catalysts used in the polymerization of olefins

IN Okumura, Yoshikuni; Seidel, Naka; Koelling, Lars

PA Basell Polyolefine G.m.b.H., Germany

SO PCT Int. Appl., 46 pp.

CODEN: PIXXD2

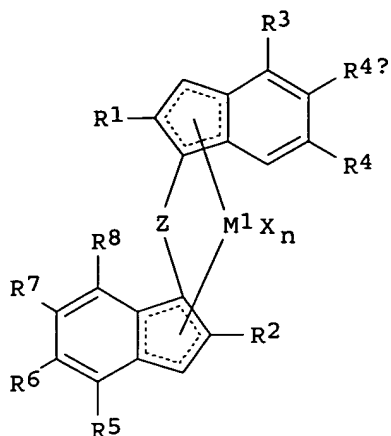
DT Patent

LA English

FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|---|------|----------|------------------|----------|
| PI | WO 2004106351 | A1 | 20041209 | WO 2004-EP5688 | 20040527 |
| | W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW | | | | |
| | RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG | | | | |
| | DE 10324541 | A1 | 20041216 | DE 2003-10324541 | 20030528 |
| | DE 10341026 | A1 | 20050331 | DE 2003-10341026 | 20030903 |
| | EP 1636245 | A1 | 20060322 | EP 2004-734999 | 20040527 |
| | R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, FI, RO, CY, TR, BG, CZ, EE, HU, PL, SK | | | | |
| PRAI | DE 2003-10324541 | A | 20030528 | | |

| | | |
|---------------------|---|----------|
| US 2003-486937P | P | 20030714 |
| DE 2003-10341026 | A | 20030903 |
| WO 2004-EP5688 | W | 20040527 |
| OS MARPAT 142:38681 | | |
| GI | | |



I

AB A organometallic transition metal compds. of the formula (I) were synthesized and used as catalysts for olefin polymerization, where M1 = a Group 3-6 element or lanthanide, X = an organic or inorg. anionic monovalent ligand, n = 1-4, R1 = H, a C1-40 unbranched or branched radical, R2 = a C3-40 radical which is branched in the α -position, R3 = a (un)substituted C6-40 aryl radical or C2-40 heteroarom. radical containing O, N, S or P, R4 = C1-10 n-alkyl, R4a = H or C1-10 n-alkyl, R5 and R6 = H or C1-40 radical, Z = a bridge containing a divalent atom or a divalent group. Thus, propylene was homopolymd. in the presence of 650 mg of dimethylsilanediyl(2,6-dimethyl-4-(4'-tert-butylphenyl)-1-indenyl)(2-iso-propyl-4-(4'-tert-butylphenyl)-1-indenyl)zirconium dichloride and MAO to yield 3.5 kg polypropylene having m.p. 153.3°, Mw 235, Mw/Mn 2.5 and viscosity number 1.87.

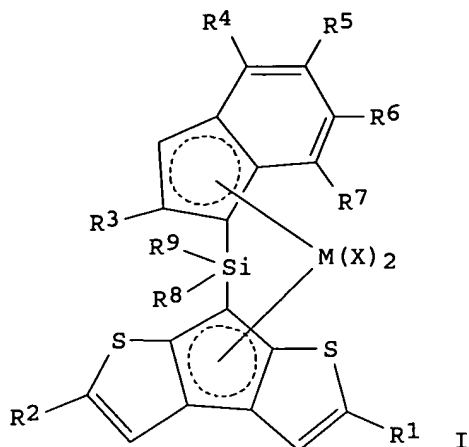
RE.CNT 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 18 OF 67 CAPLUS COPYRIGHT 2006 ACS on STN
AN 2004:996233 CAPLUS
DN 141:424583
TI Polymerization of 1-butene and metallocene catalyst applied thereby
IN Resconi, Luigi
PA Basell Polyolefine GmbH, Germany
SO PCT Int. Appl., 27 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|----|--|------|----------|-----------------|----------|
| PI | WO 2004099269 | A2 | 20041118 | WO 2004-EP5078 | 20040507 |
| | WO 2004099269 | A3 | 20050714 | | |
| | W: | | | | |
| | AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW | | | | |
| | RW: | | | | |
| | BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG | | | | |
| | EP 1622948 | A2 | 20060208 | EP 2004-731633 | 20040507 |

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, PL, SK, HR

PRAI EP 2003-101304 A 20030512
US 2003-478099P P 20030612
WO 2004-EP5078 W 20040507
OS MARPAT 141:424583
GI



AB 1-Butene is polymerized, optionally, with ≤ 30 mol.% ethylene, propylene, or α -olefins: $\text{CH}_2 = \text{CHT}$ ($\text{T} = \text{C}_3\text{-10 alkyl}$) in the presence of a catalyst system containing metallocene compound (I), Wherein $\text{M} =$ transition meta, $\text{X} = \text{H}$, halogen, hydrocarbon group, R_1 , R_2 , R_5 , R_6 , R_7 , R_8 and $\text{R}_9 = \text{H}$ or hydrocarbon groups, with the proviso that at least one of R_6 or $\text{R}_7 = \text{C}_1\text{-C}_{20}$ alkyl, R_3 and $\text{R}_4 = \text{C}_1\text{-C}_{20}$ alkyl, an alumoxane and/or a compound capable of forming an alkyl metallocene cation, and, optionally, an organic aluminum compound. Thus, 1-butene was polymerized in the presence of a catalyst system containing $\text{Al}(\text{i-Bu})_3$ and $\text{Rac-dimethylsilyl}[(2,4,7\text{-trimethyl-1-indenyl})\text{-}7\text{-(2,5-dimethyl-cyclopenta[1,2-b:4,3-b']-dithiophene)}]\text{zirconium dichloride}$ to receive an isotactic polybutene having a tacticity of 95.8 %.

L4 ANSWER 19 OF 67 CAPLUS COPYRIGHT 2006 ACS on STN

AN 2004:959880 CAPLUS

DN 142:74689

TI A convenient synthetic route to benz[cd]azulenes: Versatile ligands with the potential to bind metals in an η^5 , η^6 , or η^7 fashion

AU Balduzzi, Sonya; Mueller-Bunz, Helge; McGlinchey, Michael J.

CS Department of Chemistry, McMaster University, Hamilton, ON, L8S 4M1, Can.

SO Chemistry--A European Journal (2004), 10(21), 5398-5405

CODEN: CEUJED; ISSN: 0947-6539

PB Wiley-VCH Verlag GmbH & Co. KGaA

DT Journal

LA English

OS CASREACT 142:74689

AB A facile method for preparing the 2H-benz[cd]azulene system, based upon an elaboration of the guaiazulene framework, is presented. Aerial oxidation to the corresponding 8-(2-propylidene)-benz[cd]azulene, and also cycloaddn. reactions with tetracyanoethylene (TCNE), are described. The first x-ray crystal structure of a 2H-benz[cd]azulene, as an η^6 -coordinated $\text{Cr}(\text{CO})_3$ complex, is reported.

RE.CNT 34 THERE ARE 34 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 20 OF 67 CAPLUS COPYRIGHT 2006 ACS on STN

AN 2004:949458 CAPLUS

DN 142:93960

TI Facile Alkene Insertion into a Rhodium(III)-Acetyl Bond: Potential Catalysts for CO/Alkene Copolymerization

AU Haynes, Anthony; Haslam, Claire E.; Bonnington, Kevin J.; Parish, Louise; Adams, Harry; Spey, Sharon E.; Marder, Todd B.; Coventry, David N.

CS Departments of Chemistry, University of Sheffield, Sheffield, S3 7HF, UK
 SO Organometallics (2004), 23(25), 5907-5909
 CODEN: ORGND7; ISSN: 0276-7333
 PB American Chemical Society
 DT Journal
 LA English
 OS CASREACT 142:93960
 AB Cationic Rh(III) Me complexes, [(η^5 -ligand)Rh(CO)2Me]+ (η^5 -ligand = C5Me5, C9Me7, C9Me3H4), undergo facile reactions with strained alkenes (e.g., norbornadiene) to give products resulting from insertion of the alkene into a Rh-acetyl bond. Kinetic, mechanistic, and structural results are presented, along with evidence of catalytic activity for CO/alkene copolymer.

RE.CNT 31 THERE ARE 31 CITED REFERENCES AVAILABLE FOR THIS RECORD
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 21 OF 67 CAPLUS COPYRIGHT 2006 ACS on STN
 AN 2004:900981 CAPLUS
 DN 141:350550
 TI Metallocene compounds, metallocene-catalyzed olefin polymer preparation, and high-molecular weight polyolefins with high stereoregularity therefrom
 IN Shiota, Tsutomu; Nakano, Masato; Uei, Toshihiro
 PA Chisso Corp., Japan; Chisso Petrochemical Corporation
 SO Jpn. Kokai Tokkyo Koho, 33 pp.
 CODEN: JKXXAF
 DT Patent
 LA Japanese

FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|---------------|------|----------|-----------------|----------|
| PI | JP 2004300075 | A2 | 20041028 | JP 2003-95726 | 20030331 |
| PRAI | JP 2003-95726 | | 20030331 | | |

OS MARPAT 141:350550
 AB The metallocene compds. are represented by the general formula YKLMX2 [I; M = Ti, Zr, Hf; Y = bridging group for K and L; K, L = ligands bearing conjugated 5-membered ring which coordinate with M; H of K or L is substituted; 2-position of K and/or L contain C6-16 aryl, C6-16 halogen-containing aryl, C7-40 alkylaryl, C3-16 alicyclic hydrocarbyl; X = halo, C6-16 aryl, alkylaryl, arylalkyl; 2 X bond with M; dimethylsilylene bis(2-phenylindenyl)zirconium dichloride, dimethylsilylene bis(2-tolylindenyl)zirconium dichloride, and dimethylsilylene (cyclopentadienyl)(2-tolylindenyl)zirconium dichloride are excluded from I]. Polyolefins are prepared in the presence of olefin polymerization catalysts containing the metallocene compds. I, activators, and organoaluminum compds. as desired. These catalysts will be supported on fine particulate supports or on ion-exchanging layered compds. or inorg. silicates. Thus, 0.3 MPa propylene was polymerized at 30° in the presence of dimethylsilylene(2-methyl-4-phenylindenyl)(2-phenyl-4-phenylindenyl)zirconium dichloride and methylaluminoxane (MMAO 3A) to give 9.8 g polypropylene with MFR 0.04 g/10 min, Mw 6.4 + 105 g/mol, Mw/Mn 2.17, and m.p. 159.2° at polymerization activity 17 kg-polymer/mmol-Zr·h.

L4 ANSWER 22 OF 67 CAPLUS COPYRIGHT 2006 ACS on STN
 AN 2004:760510 CAPLUS
 DN 142:93925
 TI Zwitterionic phosphorus ylide adducts of boron-bridged ansa-zirconocene complexes as precatalysts for olefin polymerization
 AU Shapiro, Pamela J.; Jiang, Feilong; Jin, Xiaoping; Twamley, Brendan; Patton, Jasson T.; Rheingold, Arnold L.
 CS Dept. of Chemistry, University of Idaho, Moscow, ID, 83844-2343, USA
 SO European Journal of Inorganic Chemistry (2004), (16), 3370-3378
 CODEN: EJICFO; ISSN: 1434-1948
 PB Wiley-VCH Verlag GmbH & Co. KGaA
 DT Journal
 LA English
 OS CASREACT 142:93925
 AB Methylenetriphenylphosphorane was coordinated to the B of phenylborylidene-bridged bis(cyclopentadienyl)- and bis(2-methyl-4-

phenylindenyl)zirconium dichloride to form zwitterionic ansa-zirconocene complexes. The cyclopentadienyl complex (2), when activated with MAO, exhibits remarkable polymerization activity that is more than an order of magnitude greater than that of a related amidoborylidene-bridged complex as well as the com. important precatalyst [Cp'-SiMe₂-N-tBu]TiCl₂ (Cp' = C₅Me₄). The zwitterionic bis(2-methyl-4-phenylindenyl)zirconium dichloride species was isolated as a mixture of rac and meso isomers (4-6). The propylene polymerization efficiency of the isomer mixture activated by MAO is greater than that of a related silylene bridged system at 70 and 85°; however, the activity of the zwitterionic system decreased with further increase in temperature. The high level of isotactic triads (63.6%) and pentads (52.4%) in the polypropylene formed by 4-6 indicates that the rac isomer is the most active precatalyst of the mixture. The mol. structures of 2 and the rac bis-indenylzirconium isomer 4 and one of the meso isomers 5 are described.

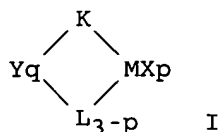
RE.CNT 30 THERE ARE 30 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 23 OF 67 CAPLUS COPYRIGHT 2006 ACS on STN
AN 2004:700627 CAPLUS
DN 141:207663
TI Manufacture of propylene-ethylene copolymers
IN Shiota, Tsutomu; Nakano, Masato; Kamii, Toshihiro
PA Chisso Corp., Japan; Chisso Petrochemical Corporation
SO Jpn. Kokai Tokkyo Koho, 37 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|---|------|----------|-----------------|----------|
| PI | JP 2004238496 | A2 | 20040826 | JP 2003-29125 | 20030206 |
| PRAI | JP 2003-29125 | | 20030206 | | |
| AB | Title copolymers containing 0.1-50 mol% C ₂ H ₄ are prepared in the presence of Ti-, Zr-, or Hf-based metallocene catalysts free from the metal-containing symmetry plane at 50-150° and show an intrinsic viscosity ([η]) of 2-12 dL/g. Polymerizing 0.1:99.9 mol% C ₂ H ₄ -C ₃ H ₆ copolymer in the presence of Et ₃ Al and Me aluminoxane-supported dimethylsilylene (2-methyl-4-phenyl-indenyl) 2-[2-(5-methylfurfuryl)-4-phenylindenyl] ZrCl ₂ [prepared from 2-methyl-4-phenylindene, Me ₂ SiCl ₂ , LiBu, 2-(5-methylfurfuryl)-4-phenyl-indene, ZrCl ₄] at 70° gave a copolymer with [η] of 2.8 dL/g. | | | | |

L4 ANSWER 24 OF 67 CAPLUS COPYRIGHT 2006 ACS on STN
AN 2004:700625 CAPLUS
DN 141:191173
TI Manufacture of high-molecular-weight olefin polymers in high yields using metallocene catalysts
IN Uei, Toshihiro; Shiota, Tsutomu
PA Chisso Corp., Japan; Chisso Petrochemical Corporation
SO Jpn. Kokai Tokkyo Koho, 39 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|-------------------|------|----------|-----------------|----------|
| PI | JP 2004238494 | A2 | 20040826 | JP 2003-29123 | 20030206 |
| PRAI | JP 2003-29123 | | 20030206 | | |
| OS | MARPAT 141:191173 | | | | |
| GI | | | | | |



AB The polymers are manufactured by using supported catalyst components (A) prepared from metallocene compds. I [M = Ti, Zr, Hf; K = conjugated 5-membered ring-based ligand; L = O, S, NR1, PR1, conjugated 5-membered ring-based ligand; R1 = halo, C1-6 alkyl (containing halo or Si), etc.; X = halo, C1-6 alkyl or aryl, alkylaryl, arylalkyl; p = 2, 3; Y = methylene, ethylene, tetraalkylethylene, etc.; q = 0-2; q = 0 if p = 3], active compds., microparticle supports, and organoaluminum compds. (optional) and showing the content of transition metals derived from I 0.01-0.3%, and organoaluminum compds. (B). Thus, polymerization of ethylene and propylene in the presence of Et3Al and a supported metallocene catalyst (Zr content 0.16%) prepared from methylaluminoxane, dimethylsilylene(2-methyl-4-phenylindenyl)[2-[2-(5-methyl)furyl]-4-phenylindenyl]zirconium dichloride, and MD 747JR (silica) at 70° for 30 min resulted in polymerization activity 50,000 g/g-catalyst-h, 2851 kg/mmol-Zr-h, ethylene content 3.7%, and bulk d. 470 kg/m3.

L4 ANSWER 25 OF 67 CAPLUS COPYRIGHT 2006 ACS on STN

AN 2004:700624 CAPLUS

DN 141:191172

TI Manufacture of olefin polymers in high yields using metallocene catalysts

IN Shiota, Tsutomu; Nakano, Masato; Uei, Toshihiro

PA Chisso Corp., Japan; Chisso Petrochemical Corporation

SO Jpn. Kokai Tokkyo Koho, 39 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|---------------|------|----------|-----------------|----------|
| PI | JP 2004238493 | A2 | 20040826 | JP 2003-29122 | 20030206 |
| PRAI | JP 2003-29122 | | 20030206 | | |

AB The polymers with melt flow rate 0.3-100 g/10 min are manufactured by using metallocene compds. bearing heterocyclic substituents at polymerization efficiency 200-50,000 kg/h per 1mmol of hetero atoms in the heterocycles. Thus, polymerization of ethylene and propylene in the presence of Et3Al, H, and a supported metallocene catalyst prepared from methylaluminoxane, dimethylsilylene(2-methyl-4-phenylindenyl)[2-[2-(5-methyl)furyl]-4-phenylindenyl]zirconium dichloride, and MD 747JR (silica) at 70° for 30 min resulted in yield 52,500 g/g-catalyst-h, polymerization efficiency 2994 kg/h per 1 mmol O atom in furyl group, and bulk d. 480 kg/m3.

L4 ANSWER 26 OF 67 CAPLUS COPYRIGHT 2006 ACS on STN

AN 2004:515558 CAPLUS

DN 141:72039

TI Organometallic transition metal compound, biscyclopentadienyl ligand, catalyst system, and preparing polyolefins

IN Schulte, Joerg; Schottek, Joerg; Okumura, Yoshikuni

PA Basell Polyolefine GmbH, Germany

SO PCT Int. Appl., 42 pp.

CODEN: PIXXD2

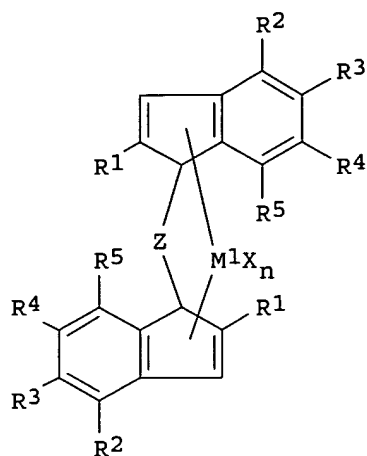
DT Patent

LA English

FAN.CNT 2

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|----|---|------|----------|------------------|----------|
| PI | WO 2004052945 | A1 | 20040624 | WO 2003-EP13553 | 20031202 |
| | W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW | | | | |
| | RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG | | | | |
| DE | 10257332 | A1 | 20040624 | DE 2002-10257332 | 20021206 |
| AU | 2003294764 | A1 | 20040630 | AU 2003-294764 | 20031202 |

EP 1567560 A1 20050831 EP 2003-785707 20031202
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK
JP 2006512410 T2 20060413 JP 2005-502307 20031202
PRAI DE 2002-10257332 A 20021206
US 2003-444595P P 20030203
WO 2003-EP13553 W 20031202
OS MARPAT 141:72039
GI



I

AB The organometallic transition metal compds. have formula I, where M1 = Group 3, 4, 5 or 6 element or the lanthanides, X = halogen, H, C1-20-alkyl, C2-C20-alkenyl, C6-C22-aryl, alkylaryl or arylalkyl each having 1-10 C atoms in the alkyl part and 6-22 C atoms in the aryl part, OR6 or NR6R7, where 2 radicals X may also be joined to each other, n = 1-4 which corresponds to the oxidation number of M1 minus 2, R1 = H or a C1-C40 radical, R2 = substituted or unsubstituted C6-C40-aryl radical or C2-C40-heteroarom. radical containing ≥ 1 heteroatom selected from O, N, S and P, R3 = H or a C1-C40 radical, or the radicals R2 and R3 together form a ring system, R4 = H or a C1-C40 radical, R5 = C1-C40 radical, and Z = divalent group CR8R9-CR10R11, where R8-11 = H or a C1-C40 radical. C3H6 was polymerized in the presence of MAO, AlEt3, SiO2-supported 1,2-ethanediylbis[2,7-dimethyl-4-(4'-tert-butylphenyl)indenyl]zirconium dichloride (preparation given) for 1 h at 65° to give isotactic polypropylene having m.p. 156.4°.

L4 ANSWER 27 OF 67 CAPLUS COPYRIGHT 2006 ACS on STN

AN 2004:509967 CAPLUS

DN 141:72034

TI Organometallic complexes of transition metals as catalysts for olefin polymerization

IN Schulte, Joerg; Schottek, Joerg; Okumura, Yoshikuni

PA Basell Polyolefine GmbH, Germany

SO Ger. Offen., 19 pp.

CODEN: GWXXBX

DT Patent

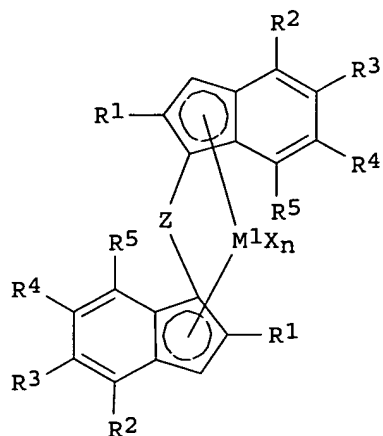
LA German

FAN.CNT 2

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|----|---|------|----------|------------------|----------|
| PI | DE 10257332 | A1 | 20040624 | DE 2002-10257332 | 20021206 |
| | WO 2004052945 | A1 | 20040624 | WO 2003-EP13553 | 20031202 |
| | W: | | | | |
| | AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, | | | | |
| | CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, | | | | |
| | GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, | | | | |
| | LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, | | | | |
| | PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, | | | | |

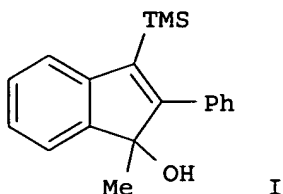
TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
 RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ,
 BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE,
 ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK,
 TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

AU 2003294764 A1 20040630 AU 2003-294764 20031202
 EP 1567560 A1 20050831 EP 2003-785707 20031202
 R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
 IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK
 JP 2006512410 T2 20060413 JP 2005-502307 20031202
 PRAI DE 2002-10257332 A 20021206
 US 2003-444595P P 20030203
 WO 2003-EP13553 W 20031202
 OS MARPAT 141:72034
 GI



AB Organotransition metal complexes of the formula I have very high activity for propylene polymerization when activated with MAO, where M1 = a transition metal of Groups 3-6 or a lanthanide metal, X = halogen, H, C1-20 alkyl, C2-20 alkenyl, C6-22 aryl or alkylaryl or arylalkyl with 1-10 carbon atoms in the alkyl residue and 6-22 carbon atoms in the aryl residue, alkyloxyl or amino groups, n = 1-4, R1 = H or C1-40 hydrocarbon residue, R2 = substituted or unsubstituted C6-40 aryl residue or C2-40 heteroarom. residue having O, N, S or P heteroatoms, R3 = H or C1-40 hydrocarbon residue, or R2 and R3 form a ring system, R4 = H or C1-40 hydrocarbon residue, R5 = C1-40 hydrocarbon residue, and Z = a bridging group CR8R9CR10R11 where R8-R11 is H or a C1-40 hydrocarbon residue. Thus, propylene was homopolymd. in the presence of MAO, AlEt3, SiO2-supported 1,2-Ethanediybis(2,7-dimethyl-4-(4'-tert-butylphenyl)indenyl)zirconium dichloride (preparation given) for 1 h at 65° to give polypropylene having m.p. 156.4°, Mw/Mn 3.0 and activity 0.82 kg PP/g.h.

L4 ANSWER 28 OF 67 CAPLUS COPYRIGHT 2006 ACS on STN
 AN 2004:481984 CAPLUS
 DN 141:123454
 TI Cobalt-catalyzed regioselective carbocyclization reaction of o-iodophenyl ketones and aldehydes with alkynes, acrylates, and acrylonitrile: A facile route to indenols and indenenes
 AU Chang, Kuo-Jui; Rayabarapu, Dinesh Kumar; Cheng, Chien-Hong
 CS Department of Chemistry, Tsing Hua University, Hsinchu, Taiwan, 300, Peop. Rep. China
 SO Journal of Organic Chemistry (2004), 69(14), 4781-4787
 CODEN: JOCEAH; ISSN: 0022-3263
 PB American Chemical Society
 DT Journal
 LA English
 OS CASREACT 141:123454
 GI



AB An efficient cobalt-catalyzed carbocyclization for the synthesis of indenols, e.g., I, and indenes and a method for reductive decyanation are described. 2-Iodophenyl ketones and aldehydes underwent carbocyclization with various disubstituted alkynes, in the presence of Co(dppe)I₂ and zinc powder, to afford the corresponding indenol derivs. in good yields. For some unsym. alkynes, the carbocyclization was remarkably regioselective, affording a single regioisomer. The cobalt-catalyzed carbocyclization reaction was successfully extended to the synthesis of indene derivs. Thus, the reaction of 2-iodophenyl ketones and aldehydes with acrylates and acrylonitrile proceeded smoothly, in the presence of Co(dppe)Cl₂/dppe and zinc powder, the corresponding indenes in moderate to good yields. Interestingly, when acrylonitrile was employed for the carbocyclization, reductive decyanation also occurred to give an indene derivative without the cyano functionality. A possible mechanism for this cobalt-catalyzed carbocyclization reaction is also proposed.

RE.CNT 54 THERE ARE 54 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 29 OF 67 CAPLUS COPYRIGHT 2006 ACS on STN

AN 2004:430844 CAPLUS

DN 141:7642

TI Process for homo or copolymerization of conjugated dienes and in situ formation of polymer blends and products made thereby

IN Thiele, Sven K.-H.; Wilson, David R.; Knoll, Susanne; Nord, Gerhard; Leukefeld, Wilfried; Pistor, Ina

PA Dow Global Technologies, Inc., USA

SO PCT Int. Appl., 58 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|--|------|----------|-----------------|----------|
| PI | WO 2004044018 | A2 | 20040527 | WO 2003-US33244 | 20031020 |
| | WO 2004044018 | A3 | 20040805 | | |
| | W: | | | | |
| | AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, YU, ZA, ZM, ZW | | | | |
| | RW: | | | | |
| | GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG | | | | |
| | AU 2003282957 | A1 | 20040603 | AU 2003-282957 | 20031020 |
| PRAI | US 2002-424670P | P | 20021107 | | |
| | WO 2003-US33244 | W | 20031020 | | |

OS MARPAT 141:7642

AB Metal complexes are disclosed containing at least one metal-nitrogen metal-phosphorus bond, more particularly at least one metal-nitrogen or metal-phosphorus bond and at least one bond by the metal to an aromatic ring system. The preparation of the catalyst and the use of the prepared catalyst to produce homopolymers or copolymers of conjugated dienes or copolymers of conjugated dienes with alpha-olefins are also disclosed. In particular, the production of (1) polymer blends of (a) homo or copolymers of conjugated dienes through polymerization of 1,3-butadiene and/or isoprene with (b) copolymers of conjugated dienes with alpha olefins through copolymn. of

1,3-butadiene or isoprene with ethylene, propene, octene or styrene and (2) polymer blends of (a) homo or copolymers of conjugated dienes through polymerization of 1,3-butadiene and/or isoprene with (b) homopolymers or copolymers of alpha olefins through homo or copolymn. of ethylene, propene, octene or styrene in the same reaction system using the catalyst system of the invention is described.

L4 ANSWER 30 OF 67 CAPLUS COPYRIGHT 2006 ACS on STN
AN 2004:384686 CAPLUS
DN 141:88948
TI Synthesis of Optically Pure (+)-Puraquinonic Acid and Assignment of Absolute Configuration to Natural (-)-Puraquinonic Acid. Use of Radical Cyclization for Asymmetric Generation of a Quaternary Center
AU Clive, Derrick L. J.; Yu, Maolin; Sannigrahi, Mousumi
CS Chemistry Department, University of Alberta, Edmonton, AB, T6G 2G2, Can.
SO Journal of Organic Chemistry (2004), 69(12), 4116-4125
CODEN: JOCEAH; ISSN: 0022-3263
PB American Chemical Society
DT Journal
LA English
OS CASREACT 141:88948
GI

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB An asym. aldol reaction between aldehyde I and imide II, followed at a later stage by ring-closing metathesis (III → IV), are key reactions used to make optically pure allylic alc. IV. Radical cyclization of the derived Stork bromo acetals gives lactol ethers, which were degraded to generate a quaternary center carrying a methoxycarboxyl group V. V was converted into (+)-puraquinonic acid (VI; R1 = Me, R2 = CO2H); and comparison with a natural sample established that the configuration of the natural compound is 2R VI (R1 = CO2H, R2 = Me).

RE.CNT 47 THERE ARE 47 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 31 OF 67 CAPLUS COPYRIGHT 2006 ACS on STN
AN 2004:250770 CAPLUS
DN 141:89413
TI Dialkoxy-substituted, C1-symmetric metallocenes: synthesis and catalytic behavior in the propylene polymerization reaction
AU Schloeg, Martin; Rieger, Bernhard
CS Department of Materials and Catalysis, University of Ulm, Ulm, D-89069, Germany
SO Zeitschrift fuer Naturforschung, B: Chemical Sciences (2004), 59(2), 233-240
CODEN: ZNBSEN; ISSN: 0932-0776
PB Verlag der Zeitschrift fuer Naturforschung
DT Journal
LA English
OS CASREACT 141:89413
AB The synthesis of a series of C1-sym. metallocene complexes rac-[1-(5,6-dialkoxy-2-methyl-1-η5-indenyl)-2-(9-η5-fluorenyl)ethane]zirconium dichlorides (alkyl:n-Bu, n-hexyl, n-octyl, n-decyl) is described. These complexes are versatile catalysts in the polymerization of propylene after in situ activation with triisobutylaluminum (TIBA) and Ph3C[B(C6F5)4] in toluene and heptane solution. All catalysts show higher solubility and improved polymerization properties in industrially used hydrocarbon solvents (e.g. heptane). However, the mol. wts. and isotacticity values of the resulting polypropylene materials are decreased compared to the ethoxy-bridged analog rac-[1-(5,6-ethylenedioxy-2-methyl-η5-indenyl)-2-(9-η5-fluorenyl)ethane]zirconium dichloride. A possible explanation is based on enhanced interaction of the active catalyst centers with Al(III) scavenger mols. even at low Al:Zr ratios, leading to reversible chain transfer.

RE.CNT 23 THERE ARE 23 CITED REFERENCES AVAILABLE FOR THIS RECORD

ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 32 OF 67 CAPLUS COPYRIGHT 2006 ACS on STN
AN 2004:171126 CAPLUS
DN 141:23637
TI Reactivity of 2,6-diethyl-4,8-dimethyl-1,5-dioxo-s-hydrindacene towards radical, anionic and cationic germylation
AU El Kadib, A.; Castel, A.; Delpech, F.; Riviere, P.; Riviere-Baudet, M.; Gornitzka, H.; Aguirre, P.; Manriquez, J. M.; Chavez, I.; Abril, D.
CS Laboratoire d'Heterochimie Fondamentale et Appliquee, Universite Paul Sabatier, UMR 5069 du CNRS, Toulouse, 31062, Fr.
SO Inorganica Chimica Acta (2004), 357(4), 1256-1264
CODEN: ICHAA3; ISSN: 0020-1693
PB Elsevier Science B.V.
DT Journal
LA English
OS CASREACT 141:23637
AB The synthesis and diastereoisomeric resolution of 2,6-diethyl-4,8-dimethyl-1,5-dioxo-s-hydrindacene allowed the determination of the structure of the meso compound by x-ray diffractometry. The diastereoisomers were inactive towards radical germylation but reacted with acidic hydrogermanes or germyllithium yielding α -germylated alcs. By contrast, they were poorly reactive towards germylamines or SET reactions. This diketone acts as an efficient spin trap in radical hydrogermylation of alkenes.
RE.CNT 16 THERE ARE 16 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 33 OF 67 CAPLUS COPYRIGHT 2006 ACS on STN
AN 2004:168102 CAPLUS
DN 140:375270
TI Structural and Stereochemical Aspects of the Group 4 Metal Chemistry of Constrained-Geometry 2-(Indenyl)phenoxide Ligation
AU Turner, Luke E.; Thorn, Matthew G.; Fanwick, Phillip E.; Rothwell, Ian P.
CS Department of Chemistry, Purdue University, West Lafayette, IN, 47907-2038, USA
SO Organometallics (2004), 23(7), 1576-1593
CODEN: ORGND7; ISSN: 0276-7333
PB American Chemical Society
DT Journal
LA English
OS CASREACT 140:375270
AB The reactivity of 2-(inden-3-yl)-4,6-di-tert-butylphenol (1) and its 2-Me (2), 1,2-di-Me (3), 2,4,7-tri-Me (4), and 1,2,4,7-tetra-Me (5) derivs. toward Group 4 metal dialkylamides was examined. Reaction of 1 equiv of the phenols 1-4 with the tetrakis(dialkylamido) compds. $[M(NR_2)_4]$ ($M = Ti, R = Me$; $M = Zr, R = Me, Et$; $M = Hf, R = Et$) gave bis(dialkylamido) compds.: e.g., $[Ti(OC_6H_2(\eta^5-Ind)-2-But_2-4,6)(NMe_2)_2]$. In these compds. the parent phenol is deprotonated at both the phenolic OH and indenyl ring, leading to the elimination of 2 equiv of dialkylamine. X-ray crystallog. structural studies of eight of these derivs. allow the variation of metal and Me substitution to be assessed. The metal coordination of compds. is best described as pseudo-tetrahedral, with the indenyl ring occupying one site of a three-legged piano-stool geometry. The M-C(indenyl) distances are consistent with an essentially η^5 coordination for all bis(dialkylamido) compds. structurally characterized. The M-O-C angles for the chelates fall in the very narrow range of 126-129°. In the solution NMR spectra, nonequivalent dialkylamido ligands give rise to sharp, well-separated resonances. Two chelating indenylphenoxide ligands were introduced into the coordination sphere of Ti, Zr, or Hf either by treatment of the tetra(dialkylamides) with 2 equiv of the parent phenol and overall loss of 4 equiv of amine or by using metathetical exchange of the dilithio salt of the indenylphenol with the corresponding metal tetrachloride. The combination of the three chiral elements (two planar chiral indenyl rings and an axially chiral metal center) within $[M(OC_6H_2(\eta^5-Ind)-2-But_2-4,6)_2]$ generates three distinct diastereoisomers. Two of the enantiomer pairs, (S,pR,pR)/(R,pS,pS) and (R,pR,pR)/(S,pS,pS), contain a C₂ axis leading to equivalent chelates and one set of ligand signals. In both of these diastereoisomers there are rac arrangements of indenyl ligands, with the only difference between the two

seen in the chelation of the aryloxy ligands to the metal center. The 3rd enantiomer pair (S,pR,pS)/(R,pR,pS) has no symmetry element and has two equal-intensity sets of ligand resonances (meso indenyl rings). Spectroscopic evidence for all three enantiomer pairs was obtained, while two forms were structurally characterized. [Ti(OC6H2{ηn-Ind}-2-But2-4,6)2] has the (S,pR,pS)/(R,pR,pS) geometry in the solid state, while isomorphous crystals of [M(OC6H2{ηn-Ind}-2-But2-4,6)2] (M = Zr, Hf) were isolated and identified as containing the (R,pR,pR)/(S,pS,pS) enantiomeric pair within the unit cell. The reaction of [Ti(NMe2)4] with 2 equiv of 2-Me substituted phenol 2, under ambient conditions, gave [Ti(OC6H2{η5-IndMe-2}-2-But2-4,6)(OC6H2{C9H6Me-2}-2-But2-4,6)2(NMe2)], containing both chelated and simple O-bound indenylphenoxide ligation. Structural studies showed that isolated crystals contained a (R,aS,pS)/(S,aR,pR) configuration within the unit cell. Thermolysis of this compound gave the bis(indenylphenoxide). The pathways giving particular bis(chelate) geometries is discussed along with the bonding of the indenyl rings to the various metal centers.

RE.CNT 53 THERE ARE 53 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 34 OF 67 CAPLUS COPYRIGHT 2006 ACS on STN

AN 2004:120861 CAPLUS

DN 140:164359

TI Group 4 metal complexes containing 4-aryl-substituted, tricyclic indenyl derivatives as olefin polymerization catalysts and catalyst manufacture

IN Graf, David D.; Kuhlman, Roger L.

PA Dow Global Technologies Inc., USA

SO PCT Int. Appl., 28 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|---|------|----------|-----------------|----------|
| PI | WO 2004013149 | A1 | 20040212 | WO 2003-US16265 | 20030522 |
| | W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, YU, ZA, ZM, ZW | | | | |
| | RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG | | | | |
| | CA 2492952 | AA | 20040212 | CA 2003-2492952 | 20030522 |
| | AU 2003233648 | A1 | 20040223 | AU 2003-233648 | 20030522 |
| | EP 1529051 | A1 | 20050511 | EP 2003-729087 | 20030522 |
| | R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK | | | | |
| | BR 2003013087 | A | 20050628 | BR 2003-13087 | 20030522 |
| | CN 1671720 | A | 20050921 | CN 2003-818247 | 20030522 |
| | JP 2005534695 | T2 | 20051117 | JP 2004-525981 | 20030522 |
| | US 2005261510 | A1 | 20051124 | US 2005-520378 | 20050103 |
| | NO 2005000092 | A | 20050216 | NO 2005-92 | 20050106 |
| PRAI | US 2002-400489P | P | 20020802 | | |
| | WO 2003-US16265 | W | 20030522 | | |
| OS | MARPAT 140:164359 | | | | |
| AB | Group 4 metal constrained geometry complexes comprise tricyclic 4-aryl substituted indenyl ligands, especially 1,5,6,7-tetrahydro-4-aryl-s-indacen-1-yl ligands. The catalyst complex [N-(1,1-dimethylethyl)-1,1-dimethyl-(1,2,3,3a,8a-η)-1,5,6,7-tetrahydro-2-methyl-4-phenyl-s-indacen-1-yl]silanaminato(2-)-N titanium di-Me was prepared and used in ethylene polymerization with 1-octene. | | | | |

L4 ANSWER 35 OF 67 CAPLUS COPYRIGHT 2006 ACS on STN

AN 2004:106500 CAPLUS

DN 140:357447

TI Synthesis and reactivity of bis(heptamethylindenyl) yttrium (Ind*2Y)

complexes containing alkyl and hydride ligands: crystal structure of
Ind*2YCl(THF)

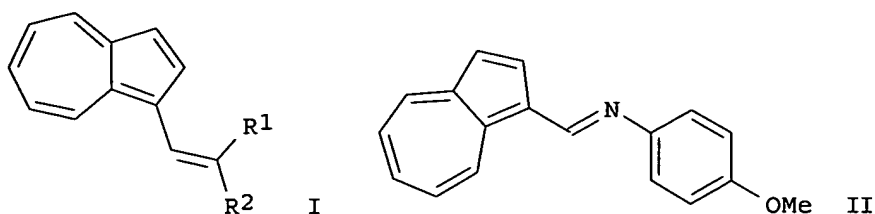
AU Gavenonis, John; Tilley, T. Don
CS Department of Chemistry, University of California, Berkeley, CA,
94720-1460, USA
SO Journal of Organometallic Chemistry (2004), 689(4), 870-878
CODEN: JORCAI; ISSN: 0022-328X
PB Elsevier Science B.V.
DT Journal
LA English
OS CASREACT 140:357447
AB The syntheses and reactivities of yttrium alkyl and hydride complexes
containing a sterically demanding, bis(heptamethylindenyl) ligand set are
reported. Chloride complex Ind*2YCl(THF) (2, Ind* = heptamethylindenyl)
was prepared by the reaction of Ind*Na (1, 2 equiv) with YCl3 in THF.
Compound 2 was structurally characterized by x-ray crystallog. Complex
reaction mixts. were obtained when compound 2 was treated with KSi(SiMe3)3
or (THF)3LiSi(SiMe3)3, although 2 reacted readily with MeLi to yield the
Me complex Ind*2YMe(THF) (3). Treatment of 3 with H2 or PhSiH3 gave the
base-stabilized hydride complex Ind*2YH(THF) (4). The base-free chloride
complex Ind*2YCl (5) was synthesized by the reaction of 1 (2 equiv) with
YCl3 in toluene. Treatment of 2 with LiCH(SiMe3)2 yielded the base-free
alkyl complex Ind*2YCH(SiMe3)2 (6). No reaction was observed between 6 and
CH4, and complex reaction mixts. were obtained when 6 was treated with H2
or PhSiH3. However, when 6 was treated with H2 in the presence of THF,
the transient hydride Ind2YH was trapped as complex 4. The increased
steric bulk of 6 leads to a slower reaction with PhSiH3 as compared to
Cp2YCH(SiMe3)2 (7).

RE.CNT 41 THERE ARE 41 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 36 OF 67 CAPLUS COPYRIGHT 2006 ACS on STN
AN 2004:101655 CAPLUS
DN 140:264065
TI Identification of potent Ras signaling inhibitors by pathway-selective
phenotype-based screening
AU Mueller, Oliver; Gourzoulidou, Eleni; Carpintero, Mercedes; Karaguni,
Ioanna-Maria; Langerak, Anette; Herrmann, Christian; Moeroey, Tarik;
Klein-Hitpass, Ludger; Waldmann, Herbert
CS Abteilung Chemische Biologie, Max-Planck-Institut fuer molekulare
Physiologie, Dortmund, 44227, Germany
SO Angewandte Chemie, International Edition (2004), 43(4), 450-454,
5450/1-5450/31
CODEN: ACIEF5; ISSN: 1433-7851
PB Wiley-VCH Verlag GmbH & Co. KGaA
DT Journal
LA English
AB Blocking the path to cancer: Application of efficient strategy for a
phenotype-based screening of compound libraries to a library of
sulindac-derived compds. yielded new inhibitors of the tumor-relevant Ras
signal transduction pathway with high fidelity (as shown by microscopy).
The results underline the advantage of using biol. prevalidated compound
classes in chemical biol. research.

RE.CNT 27 THERE ARE 27 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 37 OF 67 CAPLUS COPYRIGHT 2006 ACS on STN
AN 2003:973222 CAPLUS
DN 140:145828
TI 2-Substituted (azulen-1-yl)ethenes
AU Razus, Alexandru C.; Nitu, Carmen; Tecuceanu, Victorita; Cimpeanu,
Valentin
CS Darmstadt, Institute of Organic Chemistry, Technical University,
Darmstadt, 64287, Germany
SO European Journal of Organic Chemistry (2003), (23), 4601-4610
CODEN: EJOCFK; ISSN: 1434-193X
PB Wiley-VCH Verlag GmbH & Co. KGaA
DT Journal
LA English



AB An easy and efficient solvent-free synthesis of 1-(azulen-1-yl)-2-aryl- and heteroarylethenes, e.g. I (R1 = H; R2 = Ph, 4-O2NC6H4, 1-naphthyl, 2-thienyl, etc.), is described. The reaction was performed simply by melting solid mixts. of azulenic Schiff bases, e.g. II, and arylacetic acids, e.g. R2CH2CO2H, the crude products being purified by column chromatog. Limitations of the method were established by study of a large range of aryl and heteroarylacetic acids and also by examination of various azulenic Schiff bases. The same reaction was observed with other active methylene compds., such as malonic acid and its derivs. or 1,3-diketones, affording functionalized vinyl azulenes I (R1, R2 = CN, HO2C, MeCO, EtO2C, etc.).

RE.CNT 33 THERE ARE 33 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 38 OF 67 CAPLUS COPYRIGHT 2006 ACS on STN

AN 2003:941107 CAPLUS

DN 140:416664

TI Synthesis, stereochemistry, bonding and fluxionality of
2-(inden-3-yl)phenols and their cyclopentadienyl titanium derivatives

AU Turner, Luke E.; Thorn, Matthew G.; Swartz, R. D., II; Chesnut, Robert W.;
Fanwick, Phillip E.; Rothwell, Ian P.

CS Department of Chemistry, Purdue University, West Lafayette, IN, 47907-203,
USA

SO Dalton Transactions (2003), (24), 4580-4589

CODEN: DTARAF; ISSN: 1477-9226

PB Royal Society of Chemistry

DT Journal

LA English

OS CASREACT 140:416664

AB The phenolic reagents 2-(inden-3-yl)-4,6-di-tert-butylphenol (1) and its 2-Me (2), 1,2-di-Me (3), 2,4,7-tri-Me (4) and 1,2,4,7-tetra-Me (5) derivs. were obtained. The solid-state structures of 2, 3 and 4 were determined by x-ray diffraction and torsion angles (between the vinyl group and phenoxy ring) of 57, 61 and 79° measured. Both the (aR) and (aS) forms of the ligands are present in the solid state. Solution 1H NMR spectra show that rotation about the indenyl-phenoxy bond is facile for 1 but introduction of the 2-Me substituent leads to restricted rotation on the NMR timescale. In the crystals of 3 analyzed, only the (aS,S) and (aR,R) forms were present, with the 1-Me group pointing away from the OH group. In the 1H and 13C NMR spectra of 3 and 5 there are two, equal intensity sets of signals. Hence, both diastereoisomeric forms are present in equal concns. in solution and two sharp OH singlets are observed for 3 even at 130° in p-xylene-d10. Reaction of the phenols 1-4 with [CpTiCl3] in the presence of pyridine has previously generated the corresponding mono-aryloxides 7-10 with no evidence of the deprotonation of the indenyl ring in these reactions. In all four compds. both the (aR) and (aS) forms are present within the unit cells. Variable temperature NMR studies of 7 allow the barrier to inden-3-yl rotation (enantiomer interconversion) to be estimated at 13.9(5) kcal mol-1 (at 20°). In solution only one major set of 1H and 13C NMR resonances were observed for 1,2-di-Me derivative 9. Hence, it appears that replacement of the phenolic proton by the much bulkier [CpTiCl2] unit destabilizes the (aS,R) and (aR,S) forms in solution

Attempted de-protonation of the inden-3-yl ring in 7 by treatment with BuLi or MeLi did not give chelate rings. Instead formation of a Ti(III) dinuclear compound 11 and di-Me derivative 12 occurred. The barrier to indenyl rotation in 12 can be estimated to be 13.4(5) kcal mol⁻¹ at -5°, slightly lower than that measured for the dichloride 7. Reaction of [CpTiCl₃] with the di-lithio (doubly deprotonated ligand) did give a chelated indenyl-phenoxide derivative 13. In the solid state only the (pS,R) and (pR,S) forms were observed (indenyl oriented towards the Cp group) and in solution only one set of ¹H and ¹³C NMR signals were observed indicating the presence of this single diastereoisomer. The bonding of the indenyl group and Cp ligands in 13 were compared.

RE.CNT 64 THERE ARE 64 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 39 OF 67 CAPLUS COPYRIGHT 2006 ACS on STN
AN 2003:900002 CAPLUS
DN 140:164272
TI Novel C1 symmetric zirconocenes containing substituted indenyl moieties for the stereoregular polymerization of propylene
AU Esteb, John J.; Chien, James C. W.; Rausch, Marvin D.
CS Clowes Department of Chemistry, Butler University, Indianapolis, IN, 46208, USA
SO Journal of Organometallic Chemistry (2003), 688(1-2), 153-160
CODEN: JORCAI; ISSN: 0022-328X
PB Elsevier Science B.V.
DT Journal
LA English
AB The synthesis and polymerization behavior of four new asym. ansa-metallocenes containing a fluorenyl moiety and a substituted indenyl moiety is reported. The zirconocenes diphenylsilylene-(η⁵-9-fluorenyl)-[η⁵-1-(3-t-butyl)indenyl]-zirconium dichloride (4), dimethylsilylene-(η⁵-9-fluorenyl)-[η⁵-1-(3-t-butyl)indenyl]-zirconium dichloride (5), ethylene-1-(η⁵-9-fluorenyl)-2-[η⁵-1-(3-t-butyl)indenyl]-zirconium dichloride (6), and diphenylsilylene-(η⁵-9-fluorenyl)-[η⁵-1-(2-methyl-4-phenyl)indenyl]-zirconium dichloride (8) were all highly active for the polymerization of both ethylene and propylene when activated with excess methylaluminoxane. Compound 8 was found to produce highly isotactic polypropylene with an [mmmm] value of 83%.

RE.CNT 31 THERE ARE 31 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 40 OF 67 CAPLUS COPYRIGHT 2006 ACS on STN
AN 2003:888358 CAPLUS
DN 140:110954
TI The photochemistry of indenyl alcohols and esters: Substituent effects on the competition between ion- and radical-derived products
AU Pincock, J. A.; Young, I. S.
CS Department of Chemistry, Dalhousie University, Halifax, NS, B3H 4J3, Can.
SO Canadian Journal of Chemistry (2003), 81(10), 1083-1095
CODEN: CJCHAG; ISSN: 0008-4042
PB National Research Council of Canada
DT Journal
LA English
OS CASREACT 140:110954
AB The photochem. of the indenyl acetates 1 and pivalates 2 (containing benzene rings substituted by X = H, 5-MeO, or 6-MeO) were examined in both methanol and cyclohexane. The precursor alcs. 3 also are photoreactive. Although only radical-derived products were obtained in cyclohexane, both ion- and radical-derived products were formed in methanol. The absence of significant fluorescence emission from any of the substrates 1, 2, and 3 indicates that the excited singlet states are highly reactive. A mechanism is proposed for the ion-derived products that proceeds through direct heterolytic cleavage to give an indenyl cation - carboxylate anion pair. The indenyl cations generated are anti-aromatic in the ground state and their efficient generation by this photochem. solvolysis is in sharp contrast to the very low reactivity of related ground-state substrates. For the pivalate esters 2, an excited-state migratory decarboxylation is proposed for the formation of tert-Bu derived products.

RE.CNT 53 THERE ARE 53 CITED REFERENCES AVAILABLE FOR THIS RECORD

ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 41 OF 67 CAPLUS COPYRIGHT 2006 ACS on STN
AN 2003:854799 CAPLUS
DN 140:41891
TI Intramolecular substitution reaction of lithium alkylidene carbenoids.
Regioselective synthesis of indenenes
AU Yanagisawa, Hideyuki; Miura, Kasei; Kitamura, Mitsuru; Narasaka, Koichi;
Ando, Kaori
CS Department of Chemistry, Graduate School of Science, The University of
Tokyo, Tokyo, 113-0033, Japan
SO Bulletin of the Chemical Society of Japan (2003), 76(10), 2009-2026
CODEN: BCSJA8; ISSN: 0009-2673
PB Chemical Society of Japan
DT Journal
LA English
OS CASREACT 140:41891
AB When 4,4-dibromo-3-alkenols are treated with butyllithium, an intramol.
substitution reaction with alkoxide moiety occurs at the lithium
alkylidene carbenoid center to give dihydrofurans. The reaction mechanism
of this intramol. substitution reaction is studied by B3LYP d. functional
calcs. with the 6-31+G(d) basis set, and the substitution is found to
proceed in a concerted manner. This substitution reaction is applied to
the regioselective preparation of indene derivs. That is, treatment of
3-(2-bromophenyl)-1,1-dibromopropene derivs. with butyllithium results in
the formation of intramol. substitution intermediates, 3-indenyllithiums,
which are trapped with electrophiles to afford substituted indenenes
regioselectively. Carbenoid intermediates were generated from
 α -(3,3-dibromo-2-methyl-2-propenyl)benzenemethanol,
 α -(3,3-dibromo-2-methyl-2-propenyl)benzenepropanol,
 α -(4,4-dibromo-3-methyl-3-butenyl)benzenemethanol.
RE.CNT 54 THERE ARE 54 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 42 OF 67 CAPLUS COPYRIGHT 2006 ACS on STN
AN 2003:737352 CAPLUS
DN 139:255345
TI Methods for treatment of rheumatoid arthritis
IN Whitehead, Clark M.; Earle, Keith A.; Alila, Hector W.; Thompson, W.
Joseph
PA USA
SO U.S. Pat. Appl. Publ., 36 pp., Cont. of U.S. Ser. No. 939,414, abandoned.
CODEN: USXXCO
DT Patent
LA English
FAN.CNT 1

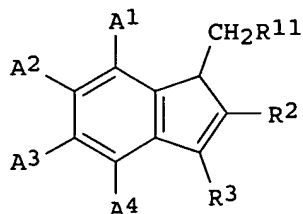
| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|----------------|------|----------|-----------------|----------|
| PI | US 2003176316 | A1 | 20030918 | US 2002-278683 | 20021023 |
| PRAI | US 2001-939414 | B1 | 20010824 | | |

OS MARPAT 139:255345
AB The present invention includes the administration of an inhibitor of
phosphodiesterase 2 (PDE2) to a mammal in need of treatment for rheumatoid
arthritis wherein said inhibitor has a PDE2 IC50 of no more than about 25
M and wherein said inhibitor does not substantially inhibit cyclooxygenase
(COX) I or COX II. The invention may also include inhibitors of
phosphodiesterase 5 (PDE5). The invention includes use of substituted
condensation products of N-benzyl-3-indenylacetamides with heterocyclic
aldehydes and other such inhibitors.

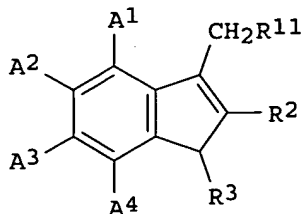
L4 ANSWER 43 OF 67 CAPLUS COPYRIGHT 2006 ACS on STN
AN 2003:725769 CAPLUS
DN 139:245787
TI Selective preparation of polysubstituted indenenes from organometallic
compounds and alkynes
IN Takahashi, Tamotsu; Xi, Zhenfeng
PA Japan Science and Technology Corporation, Japan
SO Jpn. Kokai Tokkyo Koho, 14 pp.
CODEN: JKXXAF

DT Patent
LA Japanese
FAN.CNT 1

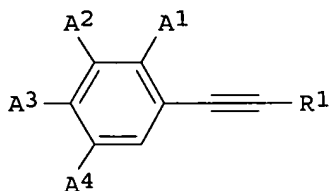
| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|-------------------|------|----------|-----------------|----------|
| PI | JP 2003261466 | A2 | 20030916 | JP 2002-63052 | 20020308 |
| PRAI | JP 2002-63052 | | 20020308 | | |
| OS | MARPAT 139:245787 | | | | |
| GI | | | | | |



I



II



III

AB Title indenenes I or II [A1-A4, R11 = H, (un)substituted C1-20 hydrocarbyl, (un)substituted C6-20 aryloxy, (un)substituted amino, etc.; 2 of the adjacent A1-A4 may be linked to form C4-20 (un)saturated ring (inserted with O, S, Si, Sn, Ge, NH, etc.); R2, R3 = similar group as in A1-A4] are prepared by treatment of ML1L2Z1Z2 (Z1, Z2 = leaving group; M = transition metal; L1, L2 = anionic ligand; L1L2 may be linked) with phenylacetylenes III (A1-A4 = same as above; R1 = similar group as in A1-A4) and R2C.tplbond.CR3 (R2, R3 = same as above), followed by intramol. cyclization in the presence of acids. Thus, zirconocene dichloride was treated stepwise with BuLi, MePPH2, Me3SiC.tplbond.CPh, and PhC.tplbond.CPh, then the reaction mixture was treated with concentrated H2SO4 to give 71% I (A1-A4 = R11 = H, R2 = R3 = Ph).

L4 ANSWER 44 OF 67 CAPLUS COPYRIGHT 2006 ACS on STN
AN 2003:697215 CAPLUS
DN 139:381830

TI Synthesis of polymers based on spiroorthocarbonates
AU Sonmez, Hayal Baubul; Wudl, Fred
CS Department of Chemistry and Biochemistry, Exotic Materials Institute,
University of California, Los Angeles, CA, 90095-1569, USA
SO Polymer Preprints (American Chemical Society, Division of Polymer
Chemistry) (2003), 44(2), 803
CODEN: ACPPAY; ISSN: 0032-3934

PB American Chemical Society, Division of Polymer Chemistry
DT Journal; (computer optical disk)
LA English

AB In this study we demonstrated a simple way to synthesize polymers based on spiro-orthocarbonate from the reaction of 1,1,4,4-trimethylolcyclohexane and tetraethylorthocarbonate.

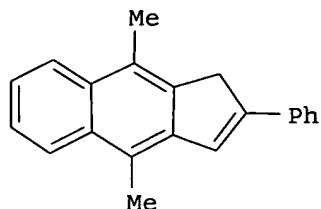
RE.CNT 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 45 OF 67 CAPLUS COPYRIGHT 2006 ACS on STN
AN 2003:592750 CAPLUS
DN 139:276960

TI Facile Synthetic Access to Multisubstituted Benz[f]indenones and Their

Application as Ligands to the First Synthesis of Group(IV) Metallocene Complexes

AU Kim, Do Han; Son, Seung Uk; Chung, Young Keun
CS School of Chemistry and Center for Molecular Catalysis, Seoul National University, Seoul, 151-747, S. Korea
SO Organic Letters (2003), 5(17), 3151-3153
CODEN: ORLEF7; ISSN: 1523-7060
PB American Chemical Society
DT Journal
LA English
OS CASREACT 139:276960
GI

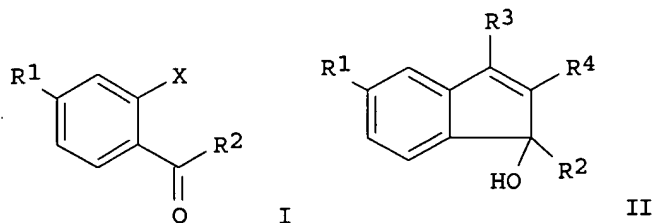


I

AB A very efficient method for the synthesis of benz[f]indenone derivs. was developed. This method allows the introduction of a variety of substituents to a mol. The first zirconocene compound of benz[f]indene was synthesized. Thus, Pauson-Khand reaction of oxabenzonorbornadiene with PhC.tplbond.CH in the presence of Co₂(CO)₈/CO in CH₂Cl₂ followed by sequential acidolysis, reduction, and dehydration gave title benz[f]indene I which was used for synthesis of zirconocene compound The crystal structure of intermediates and zirconocene compound is described.

RE.CNT 28 THERE ARE 28 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 46 OF 67 CAPLUS COPYRIGHT 2006 ACS on STN
AN 2003:585722 CAPLUS
DN 139:261025
TI Regioselective Synthesis of Indenols via Nickel-Catalyzed Carbocyclization Reaction
AU Rayabarapu, Dinesh Kumar; Yang, Chun-Hui; Cheng, Chien-Hong
CS Department of Chemistry, Tsing Hua University, Hsinchu, 300, Taiwan
SO Journal of Organic Chemistry (2003), 68(17), 6726-6731
CODEN: JOCEAH; ISSN: 0022-3263
PB American Chemical Society
DT Journal
LA English
OS CASREACT 139:261025
GI



I

II

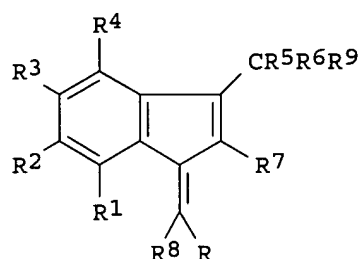
AB 2-Halophenyl ketones I (1a-1e: 1a, o-IC₆H₄COCH₃; 1b, o-BrC₆H₄COCH₃, etc.) undergo carbocyclization with alkyl propiolates R₃C.tplbond.R₄ (2a, CH₃(CH₂)₄C.tplbond.CC(=O)OCH₃; 2b, TMS.C.tplbond.CC(=O)OEt; 2c, CH₃C.tplbond.CC(=O)OCH₃; 2d, CH₃OCH₂C.tplbond.CC(=O)OCH₃; 2e,

CH₃(CH₂)₃C.tplbond.CC(=O)CH₃; 2f, PhC.tplbond.CC(=O)CH₃; and 2g, Me₃C.tplbond.CC(=O)CH₃) in the presence of Ni(dppe)Br₂ and Zn powder in MeCN at 80° to afford the corresponding indenol derivs. II with remarkable regioselectivity in good to excellent yields. The Ni-catalyzed carbocyclization reaction was successfully extended to other simple disubstituted alkynes. Thus, the reaction of 2-halophenyl ketones I with disubstituted alkynes (2h, PhC.tplbond.CPh; 2i, CH₃C₆H₄C.tplbond.CC₆H₄CH₃; 2j, CH₃CH₂C.tplbond.CCH₂CH₃; 2k, PhC.tplbond.CCH₃; 2l, TMS.C.tplbond.CCH₃; and 2m, PhC.tplbond.C(CH₂)₃CH₃) proceeded smoothly to afford the corresponding indenols in good to excellent yields. For unsym. alkynes 2k-m, the carbocyclization gave two regioisomers with regioselectivities ranging from 1:2 to 1:12 depending on the substituents on the alkyne and on the aromatic ring of halophenyl ketone. A possible mechanism for this Ni-catalyzed carbocyclization reaction is also proposed.

RE.CNT 48 THERE ARE 48 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 47 OF 67 CAPLUS COPYRIGHT 2006 ACS on STN
AN 2003:506560 CAPLUS
DN 139:69146
TI Indene derivatives as inhibitors of RAS protein-mediated cell transformations
IN Karaguni, Ioanna-Maria; Herter, Peter; Courzoulidou, Eleni; Carpintero, Mercedes; Mueller, Oliver; Waldmann, Herbert
PA Max-Planck-Gesellschaft Zur Foerderung Der Wissenschaften E.V., Germany
SO Ger. Offen., 40 pp.
CODEN: GWXXBX
DT Patent
LA German
FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|------------------|------|----------|------------------|----------|
| PI | DE 10163426 | A1 | 20030703 | DE 2001-10163426 | 20011221 |
| PRAI | DE 2001-10163426 | | 20011221 | | |
| OS | MARPAT 139:69146 | | | | |
| GI | | | | | |



AB Indenes I [R = (un)substituted 2-furyl, 3-furyl, 2-thienyl, 3-thienyl, cyclopentadienyl, 2-pyrrolyl, 3-pyrrolyl; R₁-R₈ = H, D, halogen, (un)substituted alkyl, cycloalkyl, aryl, aralkyl; R₉ = NO₂, CN, CO₂H, SO₄H, OH, CH₂OH, OMe, amidino, guanidino, esterified CO₂H] show an inhibition to RAS-protein mediated cell transformation and are used in the treatment or prevention of diseases associated with a increased cell proliferation, e.g. tumor illnesses. I are prepared by various methods. Thus, 5-fluoro-2-methylindene-3-acetic acid was treated with 3-furancarboxaldehyde to give 5-fluoro-1-(3-furylmethylene)-2-methylindene-3-acetic acid and had IC₅₀ for inhibition of p21ras/Raf interaction of 30μM.

L4 ANSWER 48 OF 67 CAPLUS COPYRIGHT 2006 ACS on STN
AN 2003:491278 CAPLUS
DN 139:53479
TI Production of a olefin polymerization catalyst by forming and solidifying a catalyst emulsion in an immiscible solvent

IN Denifl, Peter; Van Praet, Erik; Bartke, Michael; Oksman, Marita; Mustonen,
Marja; Garoff, Thomas; Pesonen, Kari
PA Borealis Technology Oy, Finland
SO PCT Int. Appl., 51 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|-----------------|--|----------|------------------|----------|
| PI | WO 2003051934 | A2 | 20030626 | WO 2002-EP14461 | 20021218 |
| | WO 2003051934 | A3 | 20030904 | | |
| | W: | AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW | | | |
| | RW: | GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG | | | |
| | EP 1323747 | A1 | 20030702 | EP 2001-660238 | 20011219 |
| | R: | AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR | | | |
| | CA 2468881 | AA | 20030626 | CA 2002-2468881 | 20021218 |
| | AU 2002366265 | A1 | 20030630 | AU 2002-366265 | 20021218 |
| | EP 1456255 | A2 | 20040915 | EP 2002-804914 | 20021218 |
| | R: | AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, SK | | | |
| | BR 2002014895 | A | 20041214 | BR 2002-14895 | 20021218 |
| | JP 2005511866 | T2 | 20050428 | JP 2003-552813 | 20021218 |
| | TW 229092 | B1 | 20050311 | TW 2002-91136608 | 20021219 |
| | US 2005054518 | A1 | 20050310 | US 2004-499760 | 20041020 |
| PRAI | EP 2001-660238 | A | 20011219 | | |
| | WO 2002-EP14461 | W | 20021218 | | |

AB An olefin polymerization catalyst comprising an organometallic compound of a transition metal of Group 3 to 10 of the Periodic Table, or an organometallic compound of an actinide, or an organometallic compound of a lanthanide is produced in the form of solid catalyst particles by a process comprising preparing a solution of one or more catalyst components, dispersing the catalyst solution in a solvent immiscible with the catalyst solution to form an emulsion having one or more catalyst components present in the droplets of the dispersed phase, and solidifying the dispersed phase to convert the droplets to solid particles comprising the catalyst, and optionally recovering the catalyst particles. The solidification can be effected by temperature change, or by polymerization of an olefinic monomer present in the droplets. Thus, a catalyst solution was produced by mixing bis(butylcyclopentadienyl)zirconium dichloride (Eurocen 5131) (49.3 mg) with 30%-toluene solution of MAO (4 mL). A surfactant was prepared by adding 2,2,3,3,4,4,5,5,6,6,7,7-dodecafluoroheptanol (284 mg) to MAO solution (0.5 mL), reacting until liberation of a gas stopped, and adding addnl. 0.5 mL of MAO solution. An emulsion was produced by mixing the catalyst solution and the surfactant in perfluorooctane (20 mL), and solidification of the catalyst was effected by pouring the emulsion into stirred perfluorooctane (60 mL) heated to 90°.

L4 ANSWER 49 OF 67 CAPLUS COPYRIGHT 2006 ACS on STN
AN 2003:472522 CAPLUS
DN 139:36978
TI Metallocenes and catalyst compositions for propene polymerization
IN Burkhardt, Terry J.; Hart, James R.; Haygood, William T.; Li, Robert T.
PA Exxonmobil Chemical Patents Inc., USA
SO PCT Int. Appl., 191 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------------|------|------|-----------------|------|
|------------|------|------|-----------------|------|

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|------|--|----|----------|-----------------|----------|
| PI | WO 2003050131 | A1 | 20030619 | WO 2001-US48719 | 20011210 |
| | W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG | | | | |
| | AU 2002230934 | A1 | 20030623 | AU 2002-230934 | 20011210 |
| | EP 1456217 | A1 | 20040915 | EP 2001-991192 | 20011210 |
| | R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR | | | | |
| | JP 2005511751 | T2 | 20050428 | JP 2003-551155 | 20011210 |
| | EP 1640377 | A1 | 20060329 | EP 2005-28395 | 20011210 |
| | R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI, CY, TR | | | | |
| | US 2005037919 | A1 | 20050217 | US 2004-495939 | 20040518 |
| PRAI | EP 2001-991192 | A3 | 20011210 | | |
| | WO 2001-US48719 | A | 20011210 | | |

OS MARPAT 139:36978

AB Certain substituted bisphenylindenyl complex metallocenes (especially Zr or Hf) and a co-catalyst are used in polymerization of olefins, especially propene homo- or copolymn. Propene/ethylene was polymerized (70°, 1 h) in the presence of MAO-PhMe solution and dimethylsilanediylbis[2,5-dimethyl-4-(3,5-di-tert-butylphenyl)indenyl]zirconium dichloride (32 mg) to give 107.3 g ethylene-propylene copolymer at catalyst efficiency 3.35 kg/g cat.

RE.CNT 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 50 OF 67 CAPLUS COPYRIGHT 2006 ACS on STN

AN 2003:434573 CAPLUS

DN 139:22624

TI Metallocene compounds, catalysts, and preparation of propylene polymers

IN Elder, Michael J.; Jones, Robert L., Jr.

PA Basell Polyolefine G.m.b.H., Germany

SO PCT Int. Appl., 38 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|--|------|----------|-----------------|----------|
| PI | WO 2003045964 | A1 | 20030605 | WO 2002-EP13552 | 20021128 |
| | W: JP, US RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR | | | | |
| | EP 1448578 | A1 | 20040825 | EP 2002-787889 | 20021128 |
| | R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI, CY, TR, BG, CZ, EE, SK | | | | |
| | JP 2005510567 | T2 | 20050421 | JP 2003-547413 | 20021128 |
| | US 2005010058 | A1 | 20050113 | US 2004-496253 | 20040521 |
| PRAI | EP 2001-204624 | A | 20011130 | | |
| | WO 2002-EP13552 | W | 20021128 | | |
| OS | MARPAT 139:22624 | | | | |
| GI | | | | | |

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB A metallocene compound has formula I, where M = Zr, Hf or Ti; X = H, halogen, or a hydrocarbyl radical optionally containing heteroatoms; R2-5 = H or hydrocarbyl radicals; R6 = hydrocarbyl radical; L = divalent bridging group; T = radicals II-V, where R8 and R9 = H or hydrocarbyl radical, providing ≥1 group among R1, R5, R6 and R8 = C(R11)2R12 where R11,

equal to or different from each other, is hydrocarbyl radical; and R12 = H or an hydrocarbyl radical. Thus, propene and ethylene were polymerized (70°) in the presence of 10% MAO solution and 0.1 mg Me2Si(2-Me-5-iso-propyl-3-phenyl-cyclopento[2,3-b]thiophen-6-yl)(2-methyl-4-phenylinden-6-yl)ZrCl2 metallocene catalyst (preparation given) to give 300 g 94.8:5.2 copolymer at catalyst activity 4000 kg/g-catalyst h.

RE.CNT 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 51 OF 67 CAPLUS COPYRIGHT 2006 ACS on STN

AN 2003:434440 CAPLUS

DN 139:22623

TI Organometallic transition metal compound, biscyclopentadienyl ligand, catalyst system, and preparation of polyolefins

IN Okumura, Yoshikuni; Oberhoff, Markus; Schottek, Joerg; Schulte, Joerg

PA Basell Polyolefine G.m.b.H., Germany

SO PCT Int. Appl., 66 pp.

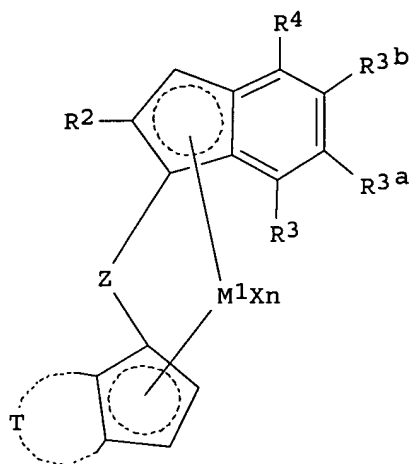
CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|---|------|----------|------------------|----------|
| PI | WO 2003045551 | A1 | 20030605 | WO 2002-EP13296 | 20021126 |
| | W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW | | | | |
| | RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG | | | | |
| | DE 10158656 | A1 | 20030626 | DE 2001-10158656 | 20011130 |
| | AU 2002358541 | A1 | 20030610 | AU 2002-358541 | 20021126 |
| | EP 1455938 | A1 | 20040915 | EP 2002-792805 | 20021126 |
| | R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, SK | | | | |
| | JP 2005510546 | T2 | 20050421 | JP 2003-547045 | 20021126 |
| | US 2004260107 | A1 | 20041223 | US 2004-496142 | 20040520 |
| PRAI | DE 2001-10158656 | A | 20011130 | | |
| | WO 2002-EP13296 | W | 20021126 | | |
| OS | MARPAT 139:22623 | | | | |
| GI | | | | | |



I

AB Organometallic transition metal compds. have formula I (M1 = Group 3, 4, 5 or 6 element or lanthanides; X = halogen, H, C1-20-alkyl, C2-C20-alkenyl,

C6-C22-aryl, alkylaryl or arylalkyl having C1-10-alkyl and 6-22 C aryl atoms, OR5 or NR5R6, where 2 radicals X may also be joined to each other or 2 radicals X may together form a substituted or unsubstituted diene ligand, in particular a 1,3-diene ligand; R5, R6 = C1-10-alkyl, C6-C15-aryl, alkylaryl, arylalkyl, fluoro C1-10-alkyl or fluoroaryl having 6-22 C aryl atoms; n = 1-4 which is the oxidation number of M1 minus 2; R1 = C2-C40 radical which is branched in the α position). Further, R2 = H or a C1-C40 radical which may be branched or unbranched in the α position; R3, R3a and R3b = H or a C1-C40 radical, where ≥ 1 of the radicals R3, R3a, R3b is not H; R4 = (un)substituted C6-C40-aryl radical or C2-C40-heteroarom. radical containing ≥ 1 heteroatom selected from O, N, S and P; T is a divalent C1-C40 group which together with the cyclopentadienyl ring forms a further saturated or unsatd. ring system having a ring size 5-12 atoms, where T may contain the heteroatoms Si, Ge, N, P, O or S within the ring system fused onto the cyclopentadienyl ring, and Z is a bridge consisting of a divalent atom or a divalent group.

RE.CNT 18 THERE ARE 18 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 52 OF 67 CAPLUS COPYRIGHT 2006 ACS on STN

AN 2003:394855 CAPLUS

DN 138:385576

TI Process for preparation of half-vanadocene compound

IN Kohara, Tadanao; Kubo, Tomoya

PA Nichia Corporation, Japan

SO Eur. Pat. Appl., 20 pp.

CODEN: EPXXDW

DT Patent

LA English

FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|---|------|----------|-----------------|----------|
| PI | EP 1312610 | A1 | 20030521 | EP 2002-25819 | 20021118 |
| | EP 1312610 | B1 | 20040908 | | |
| | R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, SK | | | | |
| | JP 2003155294 | A2 | 20030527 | JP 2001-353836 | 20011119 |
| | JP 3714237 | B2 | 20051109 | | |
| | US 2003109733 | A1 | 20030612 | US 2002-298624 | 20021115 |
| | US 6849753 | B2 | 20050201 | | |
| | CN 1420118 | A | 20030528 | CN 2002-152208 | 20021119 |
| PRAI | JP 2001-353836 | A | 20011119 | | |

OS CASREACT 138:385576; MARPAT 138:385576

AB A process for preparing a half-vanadocene compound, the process comprising reacting chlorine gas with a vanadocene compound, Cp₂VX₂ (Cp = cyclopentadienyl, substituted cyclopentadienyl, indenyl, substituted indenyl, fluorenyl, substituted fluorenyl, benzoindenyl, substituted benzoindenyl, azulenyl or substituted azulenyl, and the two Cp groups may be the same or different, X represents fluorine, chlorine, bromine or iodine and the two X atoms may be the same or different). Thus, reaction of VC1₄ with CpNa in THF gave Cp₂VC1₂ which on chlorination with Cl₂ gas in CHCl₃ gave 60% CpVOC1₂.

RE.CNT 10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 53 OF 67 CAPLUS COPYRIGHT 2006 ACS on STN

AN 2003:300624 CAPLUS

DN 138:314602

TI Methods for treatment of multiple sclerosis

IN Whitehead, Clark M.; Earle, Keith A.; Alila, Hector W.; Thompson, W. Joseph

PA USA

SO U.S. Pat. Appl. Publ., 37 pp., Cont. of U.S. Ser. No. 935,951, abandoned.

CODEN: USXXCO

DT Patent

LA English

FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|--|------------|------|-------|-----------------|-------|
| | ----- | ---- | ----- | ----- | ----- |

PI US 2003073741 A1 20030417 US 2002-152111 20020521
PRAI US 2001-935951 B1 20010823

OS MARPAT 138:314602

AB Substituted condensation products of N-benzyl-3-indenylacetamides with heterocyclic aldehydes and other such inhibitors are useful for the treatment of multiple sclerosis.

L4 ANSWER 54 OF 67 CAPLUS COPYRIGHT 2006 ACS on STN

AN 2003:265846 CAPLUS

DN 139:365039

TI η^5 -Indenylruthenium(II) hydride complexes: synthesis and protonation reactions

AU Gamasa, M. Pilar; Gimeno, J.; Gonzalez-Bernardo, Covadonga; Martin-Vaca, B. M.; Borge, Javier; Garcia-Granda, Santiago

CS Instituto de Quimica Organometalica 'Enrique Moles' (Unidad Asociada al CSIC), Facultad de Quimica, Departamento de Quimica Organica e Inorganica, Universidad de Oviedo, Oviedo, 33071, Spain

SO Inorganica Chimica Acta (2003), 347, 181-188

CODEN: ICHAA3; ISSN: 0020-1693

PB Elsevier Science B.V.

DT Journal

LA English

OS CASREACT 139:365039

AB Hydride complexes $[\text{RuH}(\eta^5\text{-1,2,3-C}_9\text{R}_3\text{R}'_4)\text{LL}']$ [$\text{R} = \text{R}' = \text{H}$, $\text{LL}' = \text{dppm}$ (1), dppe (2); $\text{L} = \text{L}' = \text{PMe}_2\text{Ph}$ (3); $\text{L} = \text{PPh}_3$, $\text{L}' = \text{PMe}_3$ (4), PMe_2Ph (5), PMePh_2 (6); $\text{L} = \text{CO}$, $\text{L}' = \text{PiPr}_3$ (7); $\text{R} = \text{Me}$, $\text{R}' = \text{H}$, $\text{LL}' = \text{dppm}$ (8); $\text{L} = \text{CO}$, $\text{L}' = \text{PPh}_3$ (9), PiPr_3 (10); $\text{R} = \text{R}' = \text{Me}$, $\text{L} = \text{CO}$, $\text{L}' = \text{PiPr}_3$ (11)] were prepared in 70-98% yields by the reaction of $[\text{RuX}(\eta^5\text{-1,2,3-C}_9\text{R}_3\text{R}'_4)\text{LL}']$ ($\text{R} = \text{R}' = \text{H}$, $\text{X} = \text{Cl}$; $\text{R} = \text{Me}$, $\text{R}' = \text{H}$, Me , $\text{X} = \text{Br}$) with an excess of NaOMe in MeOH (at reflux or room temperature). Protonation of the hydride complex $[\text{RuH}(\eta^5\text{-C}_9\text{H}_7)(\text{PPh}_3)\text{L}]$ ($\text{L} = \text{PPh}_3$ (12), PMe_3 (4)) with $\text{HBF}_4 \cdot \text{OEt}_2$ in Et₂O yields the dihydride complexes $[\text{RuH}_2(\eta^5\text{-C}_9\text{H}_7)(\text{PPh}_3)\text{L}][\text{BF}_4]$ ($\text{L} = \text{PPh}_3$ (13), PMe_3 (14)). Crystal structures of $[\text{RuH}(\eta^5\text{-C}_9\text{H}_7)(\text{PPh}_3)_2]$ (12) and $[\text{RuH}_2(\eta^5\text{-C}_9\text{H}_7)(\text{PPh}_3)_2][\text{BF}_4] \cdot \text{CH}_2\text{Cl}_2$ (13) were determined by x-ray crystallog.

RE.CNT 46 THERE ARE 46 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 55 OF 67 CAPLUS COPYRIGHT 2006 ACS on STN

AN 2003:189285 CAPLUS

DN 139:36846

TI Effect of π -donor in unbridged metallocene catalyst for propylene polymerization

AU Yasin, Tariq; Fan, Zhiqiang; Feng, Linxian

CS Applied Chemistry Laboratories, Pakistan Institute of Nuclear Science and Technology, Islamabad, Pak.

SO European Polymer Journal (2003), 39(5), 903-907

CODEN: EUPJAG; ISSN: 0014-3057

PB Elsevier Science Ltd.

DT Journal

LA English

AB A new unbridged metallocene catalyst bis(2,4-dimethyl-7-methoxyindenyl) zirconium dichloride was synthesized and polymerization of propylene was carried out with this catalyst and the results are compared with bis(2,4,7-trimethylindenyl) zirconium dichloride. The presence of π -donor substituent on the indenyl ring led to a decrease in catalytic activity of the catalyst as well as the resulting mol. weight of the polymer as compared to its tri-alkyl substituted congener. The methoxy group deactivates the catalyst and also suppresses the favorable effect of other Me substituents present in the indenyl ligand.

RE.CNT 18 THERE ARE 18 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 56 OF 67 CAPLUS COPYRIGHT 2006 ACS on STN

AN 2003:173418 CAPLUS

DN 138:215351

TI Phosphodiesterase-2 and -5 inhibitors for the treatment of scleroderma

IN Whitehead, Clark M.; Earle, Keith A.; Alila, Hector W.; Thompson, W. Joseph

PA Cell Pathways, Inc., USA
SO PCT Int. Appl., 65 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|---|------|----------|-----------------|----------|
| PI | WO 2003017999 | A1 | 20030306 | WO 2002-US26662 | 20020822 |
| | W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW | | | | |
| | RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG | | | | |
| | US 2003073711 | A1 | 20030417 | US 2001-938160 | 20010823 |
| | EP 1435940 | A1 | 20040714 | EP 2002-757292 | 20020822 |
| | R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, SK | | | | |
| | US 2006100210 | A1 | 20060511 | US 2005-304519 | 20051215 |
| PRAI | US 2001-938160 | A | 20010823 | | |
| | WO 2002-US26662 | W | 20020822 | | |

OS MARPAT 138:215351

AB Substituted condensation products of N-benzyl-3-indenylacetamides with heterocyclic aldehydes and other inhibitors of phosphodiesterases 2 and 5 are useful for the treatment of scleroderma. Preparation of compds. of the invention is described.

RE.CNT 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 57 OF 67 CAPLUS COPYRIGHT 2006 ACS on STN

AN 2003:173373 CAPLUS

DN 138:215349

TI Phosphodiesterase-2 and -5 inhibitors for the treatment of lupus erythematosus

IN Whitehead, Clark M.; Earle, Keith A.; Alila, Hector W.; Thompson, W. Joseph

PA Cell Pathways, Inc., USA

SO PCT Int. Appl., 72 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

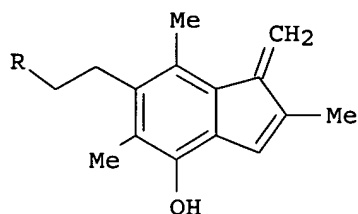
| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|---|------|----------|-----------------|----------|
| PI | WO 2003017926 | A2 | 20030306 | WO 2002-US25702 | 20020813 |
| | WO 2003017926 | A3 | 20030904 | | |
| | W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW | | | | |
| | RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG | | | | |
| | US 2003073740 | A1 | 20030417 | US 2001-938009 | 20010823 |
| | EP 1435961 | A2 | 20040714 | EP 2002-752826 | 20020813 |
| | R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, SK | | | | |
| PRAI | US 2001-938009 | A | 20010823 | | |
| | WO 2002-US25702 | W | 20020813 | | |

OS MARPAT 138:215349

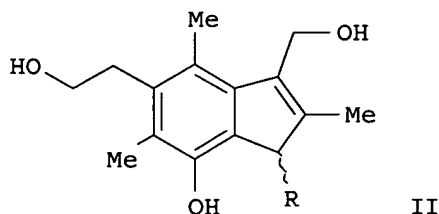
AB Substituted condensation products of N-benzyl-3-indenylacetamides with

heterocyclic aldehydes and other inhibitors of phosphodiesterases 2 and 5 are useful for the treatment of lupus erythematosus. Preparation of compds. of the invention is described.

L4 ANSWER 58 OF 67 CAPLUS COPYRIGHT 2006 ACS on STN
AN 2003:35691 CAPLUS
DN 138:238308
TI Reaction of Irofulven with Zinc and Acid
AU McMorris, Trevor C.; Moon, Surk-Sik; Kelner, Michael J.
CS Department of Chemistry and Biochemistry, University of California, La Jolla, CA, 92093-0506, USA
SO Journal of Natural Products (2003), 66(2), 310-312
CODEN: JNPRDF; ISSN: 0163-3864
PB American Chemical Society
DT Journal
LA English
OS CASREACT 138:238308
GI



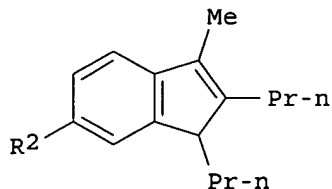
I



II

AB Reaction of antitumor agent irofulven with zinc and acetic acid yielded several new indene derivs. [I (R = H, OAc, OH), II (R = OH)] as well as the known indene II (R = H). These all have greatly reduced toxicity to human leukemia (HL60) cells compared to irofulven.
RE.CNT 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 59 OF 67 CAPLUS COPYRIGHT 2006 ACS on STN
AN 2003:29218 CAPLUS
DN 138:237881
TI One-Pot Synthetic Routes to Multiply Substituted Indene Derivatives by Hydrolysis of Zirconocene-Mediated Intermolecular Coupling Reactions of Aromatic Ketones and Alkynes
AU Xi, Zhenfeng; Guo, Ruiyun; Mito, Shizue; Yan, Hongliang; Kanno, Ken-ichiro; Nakajima, Kiyohiko; Takahashi, Tamotsu
CS Peking University-Hokkaido University Joint Lab, College of Chemistry and Molecular Engineering, Peking University, Beijing, 100871, Peop. Rep. China
SO Journal of Organic Chemistry (2003), 68(4), 1252-1257
CODEN: JOCEAH; ISSN: 0022-3263
PB American Chemical Society
DT Journal
LA English
OS CASREACT 138:237881
GI



I

AB Two one-pot multicomponent synthetic methods for preparation of highly

substituted indenenes are described. The intermol. coupling of aromatic ketones R1COMe [R1 = Ph, 4-MeC6H4, 2,3,4-(MeO)3C6H2, 2-thienyl, 2-naphthyl, etc.] with 4-octyne on low-valent zirconocene species generates the corresponding oxazirconacyclopentenes, which upon hydrolysis with 20% HCl for 3 h afforded indenenes, e.g. I (R2 = H, F, Cl, Me, MeO, Ph) from 4-R2C6H4COMe, in good to excellent yields. Similarly, the pair-selective coupling of two identical or different alkynes bearing at least one aromatic substituent formed zirconacyclopentadienes, which on quenching with concentrated H2SO4 also gave highly substituted indenenes in high yields.

RE.CNT 35 THERE ARE 35 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 60 OF 67 CAPLUS COPYRIGHT 2006 ACS on STN

AN 2003:5511 CAPLUS

DN 138:56424

TI Alkaryl-substituted Group IV metal complexes, catalysts and olefin polymerization process

IN Klosin, Jerzy; Kruper, William J.; Nickias, Peter N.; Roof, Gordon R.; Soto, Jorge; Graf, David D.

PA Dow Global Technologies Inc., USA

SO U.S. Pat. Appl. Publ., 32 pp., Cont.-in-part of U.S. Ser. No. 715,380.
CODEN: USXXCO

DT Patent

LA English

FAN.CNT 3

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|---|------|----------|-----------------|----------|
| PI | US 2003004286 | A1 | 20030102 | US 2002-154534 | 20020523 |
| | US 6825295 | B2 | 20041130 | | |
| | EP 1253158 | A1 | 20021030 | EP 2002-17456 | 20001117 |
| | R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR | | | | |
| | US 6515155 | B1 | 20030204 | US 2000-715380 | 20001117 |
| | JP 2003104995 | A2 | 20030409 | JP 2002-203909 | 20001117 |
| | ZA 2002004069 | A | 20030522 | ZA 2002-4069 | 20020522 |
| | CA 2483326 | AA | 20031106 | CA 2003-2483326 | 20030408 |
| | WO 2003091265 | A1 | 20031106 | WO 2003-US10543 | 20030408 |
| | W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, YU, ZA, ZM, ZW | | | | |
| | RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG | | | | |
| | AU 2003228452 | A1 | 20031110 | AU 2003-228452 | 20030408 |
| | EP 1501843 | A1 | 20050202 | EP 2003-726205 | 20030408 |
| | R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK | | | | |
| | JP 2005528412 | T2 | 20050922 | JP 2003-587823 | 20030408 |
| | ZA 2003003941 | A | 20040211 | ZA 2003-3941 | 20030521 |
| PRAI | US 1999-170175P | P | 19991210 | | |
| | US 1999-170177P | P | 19991210 | | |
| | US 1999-170178P | P | 19991210 | | |
| | US 2000-715380 | A2 | 20001117 | | |
| | EP 2000-980485 | A3 | 20001117 | | |
| | JP 2001-543610 | A3 | 20001117 | | |
| | US 2002-128788 | A | 20020423 | | |
| | US 2002-154534 | A | 20020523 | | |
| | WO 2003-US10543 | W | 20030408 | | |

OS MARPAT 138:56424

AB Group 4 metal complexes of the constrained geometry type, characterized by an alkaryl-substituted silane bridging group, are useful polymerization catalysts for olefins and addition polymerizable monomers.

RE.CNT 28 THERE ARE 28 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 61 OF 67 CAPLUS COPYRIGHT 2006 ACS on STN
 AN 2002:882748 CAPLUS
 DN 138:287376
 TI Intramolecular substitution reaction of alkylidene-lithium carbenoids:
 regioselective synthesis of indenenes
 AU Yanagisawa, Hideyuki; Miura, Kasei; Kitamura, Mitsuru; Narasaka, Koichi;
 Ando, Kaori
 CS Department of Chemistry, Graduate School of Science, The University of
 Tokyo, Tokyo, 113-0033, Japan
 SO Helvetica Chimica Acta (2002), 85(10), 3130-3135
 CODEN: HCACAV; ISSN: 0018-019X
 PB Verlag Helvetica Chimica Acta
 DT Journal
 LA English
 OS CASREACT 138:287376
 AB Intramol. substitution reaction of geminal dibromoalkenes proceeds to
 afford indenenes, dihydronaphthalenes, dihydrofurans, and dihydropyran via
 in situ generated lithium alkylidene carbenoids, which have a carbon or
 oxygen nucleophilic moiety. This reaction provides a regioselective
 method for the preparation of polysubstituted indenenes.
 RE.CNT 17 THERE ARE 17 CITED REFERENCES AVAILABLE FOR THIS RECORD
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 62 OF 67 CAPLUS COPYRIGHT 2006 ACS on STN
 AN 2002:864384 CAPLUS
 DN 137:346209
 TI Methods for treatment of type I diabetes
 IN Whitehead, Clark M.; Earle, Keith A.; Alila, Hector W.; Thompson, W.
 Joseph
 PA Cell Pathways, Inc., USA
 SO U.S., 42 pp.
 CODEN: USXXAM
 DT Patent
 LA English

FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|--------|---|------|----------|-----------------|----------|
| PI | US 6479493 | B1 | 20021112 | US 2001-935802 | 20010823 |
| | WO 2003017925 | A2 | 20030306 | WO 2002-US25524 | 20020809 |
| | WO 2003017925 | A3 | 20040311 | | |
| | W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, | | | | |
| | CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, | | | | |
| | GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, | | | | |
| | LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, | | | | |
| | PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, | | | | |
| | UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW | | | | |
| | RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, | | | | |
| | KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, | | | | |
| | FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF, | | | | |
| | CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG | | | | |
| | EP 1435962 | A2 | 20040714 | EP 2002-763431 | 20020809 |
| | R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, | | | | |
| | IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, SK | | | | |
| PRAI | US 2001-935802 | A | 20010823 | | |
| | WO 2002-US25524 | W | 20020809 | | |
| AB | Substituted condensation products of -benzyl-3-indenylacetamides with heterocyclic aldehydes and other such inhibitors are useful for the treatment of type I diabetes. | | | | |
| RE.CNT | 73 THERE ARE 73 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT | | | | |

L4 ANSWER 63 OF 67 CAPLUS COPYRIGHT 2006 ACS on STN
 AN 2002:790259 CAPLUS
 DN 137:295097
 TI Preparation of 2-aryl-7-haloindenenes and their coupling reactions with aryl
 Grignard reagents to give metallocene catalyst ligands
 IN Sullivan, Jeffrey M.; Barnes, Hamlin H.
 PA Boulder Scientific Company, USA

SO U.S., 12 pp., Cont.-in-part of U.S. 5,789,634.

CODEN: USXXAM

DT Patent

LA English

FAN.CNT 4

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|--|------|----------|-----------------|----------|
| PI | US 6465700 | B1 | 20021015 | US 1998-127796 | 19980803 |
| | US 5789634 | A | 19980804 | US 1997-795019 | 19970205 |
| | CA 2305363 | AA | 20000217 | CA 1999-2305363 | 19990803 |
| | WO 2000007968 | A1 | 20000217 | WO 1999-US17519 | 19990803 |
| | W: AU, CA, JP, NZ, US | | | | |
| | RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE | | | | |
| | AU 9953324 | A1 | 20000228 | AU 1999-53324 | 19990803 |
| | AU 764843 | B2 | 20030904 | | |
| | EP 1027314 | A1 | 20000816 | EP 1999-938949 | 19990803 |
| | R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI | | | | |
| | NZ 503655 | A | 20010928 | NZ 1999-503655 | 19990803 |
| | JP 2002522405 | T2 | 20020723 | JP 2000-563603 | 19990803 |
| PRAI | US 1997-795019 | A2 | 19970205 | | |
| | US 1998-127796 | A | 19980803 | | |
| | WO 1999-US17519 | W | 19990803 | | |

OS CASREACT 137:295097

AB 2-Aryl-7-haloindenes were prepared and coupled with aryl Grignard reagents. The compds. can then be converted into ansa-metallocene α -olefin polymerization catalysts (no data). For example, 2-phenyl-7-chloroindene (synthetic preparation given) undergoes coupling reaction with phenylmagnesium bromide to give 2,7-diphenylindene, which can be reacted with dimethyldichlorosilane and ZrCl₄ to yield the corresponding ansa-metallocene complex.

RE.CNT 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 64 OF 67 CAPLUS COPYRIGHT 2006 ACS on STN

AN 2002:790228 CAPLUS

DN 137:289014

TI Methods using N-benzyl-3-indenylacetamide condensation products for treatment of cystic fibrosis

IN Earle, Keith A.; Alila, Hector W.; Whitehead, Clark M.; Thompson, W. Joseph

PA Cell Pathways, Inc., USA

SO U.S., 35 pp.

CODEN: USXXAM

DT Patent

LA English

FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|---|------|----------|-----------------|----------|
| PI | US 6465494 | B1 | 20021015 | US 2001-938786 | 20010824 |
| | WO 2003017765 | A1 | 20030306 | WO 2002-US26220 | 20020819 |
| | W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM | | | | |
| | RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG | | | | |
| | EP 1435782 | A1 | 20040714 | EP 2002-796387 | 20020819 |
| | R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, SK | | | | |
| PRAI | US 2001-938786 | A | 20010824 | | |
| | WO 2002-US26220 | W | 20020819 | | |

OS MARPAT 137:289014

AB Substituted condensation products of N-benzyl-3-indenylacetamides with heterocyclic aldehydes and other such inhibitors are useful for the treatment of cystic fibrosis. Preparation of e.g. (Z)-5-fluoro-2-methyl-(4-pyridinylidene)-3-(N-benzyl)indenylacetamide is described.

RE.CNT 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 65 OF 67 CAPLUS COPYRIGHT 2006 ACS on STN

AN 2002:775945 CAPLUS

DN 138:73116

TI Synthesis of (+)-puraquinonic acid

AU Clive, Derrick L. J.; Yu, Maolin

CS Chemistry Department, University of Alberta, Edmonton, AB, T6G 2G2, Can.

SO Chemical Communications (Cambridge, United Kingdom) (2002), (20), 2380-2381

CODEN: CHCOFS; ISSN: 1359-7345

PB Royal Society of Chemistry

DT Journal

LA English

OS CASREACT 138:73116

AB (+)-Puraquinonic acid was synthesized, using a route based on ring-closing metathesis and radical cyclization; the chirality of the quaternary carbon being controlled by a temporary adjacent asym. center.

RE.CNT 34 THERE ARE 34 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 66 OF 67 CAPLUS COPYRIGHT 2006 ACS on STN

AN 2002:733868 CAPLUS

DN 137:263445

TI Bridged metallocene polymerization catalysts with a donor-acceptor interaction

IN Ostoja-Starzewski, Karl-Heinz Aleksander; Xin, Bruce Shixuan

PA Bayer AG, Germany

SO Ger. Offen., 28 pp.

CODEN: GWXXBX

DT Patent

LA German

FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|---|------|----------|------------------|----------|
| PI | DE 10114345 | A1 | 20020926 | DE 2001-10114345 | 20010323 |
| | CA 2441337 | AA | 20021003 | CA 2002-2441337 | 20020314 |
| | WO 2002076999 | A1 | 20021003 | WO 2002-EP2831 | 20020314 |
| | W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM | | | | |
| | RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG | | | | |
| EP | 1373284 | A1 | 20040102 | EP 2002-722217 | 20020314 |
| | R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR | | | | |
| | JP 2004534740 | T2 | 20041118 | JP 2002-576257 | 20020314 |
| | US 2003036474 | A1 | 20030220 | US 2002-100338 | 20020318 |
| | US 6657027 | B2 | 20031202 | | |
| PRAI | DE 2001-10114345 | A | 20010323 | | |
| | WO 2002-EP2831 | W | 20020314 | | |

AB The compds. are complexes of a Group IV transition metal with 2 same or different cyclopentadienyl, indenyl or fluorenyl ligands, one having an electron-donor substituent, e.g., PMe₂, and the other having an electron-acceptor substituent, e.g., B(C₆F₅)₂, such that interaction of the substituents forms a reversible bridge between the cyclopentadienyl, indenyl or fluorenyl rings. The compds are useful as catalysts for production of high mol. weight polyolefins, such as polyethylene, polypropylene, ethylene-propylene copolymer or ethylene-propylene-ethylidenenorbornene

copolymer, with high polymerization activity.

L4 ANSWER 67 OF 67 CAPLUS COPYRIGHT 2006 ACS on STN

AN 2002:675836 CAPLUS

DN 137:201337

TI Methods for treatment of inflammatory bowel disease and preparation of indenylacetamides for said treatment

IN Earle, Keith A.; Alila, Hector W.; Whitehead, Clark M.

PA Cell Pathways, Inc., USA

SO PCT Int. Appl., 64 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|----|---|------|----------|-----------------|----------|
| PI | WO 2002067936 | A1 | 20020906 | WO 2002-US4831 | 20020220 |
| | W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM | | | | |
| | RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG | | | | |

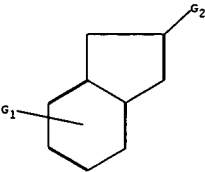
| | | | | |
|------------|----|----------|----------------|----------|
| US 6699894 | B1 | 20040302 | US 2002-252286 | 20020923 |
|------------|----|----------|----------------|----------|

PRAI US 2001-789848 A 20010221

OS MARPAT 137:201337

AB Claimed is a method of treating inflammatory bowel disease in a mammal with that disease comprising administering to the mammal a physiologically effective amount of an inhibitor of both PDE2 and PDE5.
(Z)-5-Fluoro-2-methyl-(4-pyridylidene)-3-(N-benzyl)indenylacetamide hydrochloride (I) was prepared. I had an IC₅₀ value of 14 μ M for PDE2 and IC₅₀ value of 4 μ M for PDE5. The inflammatory bowel disease in humans is quite similar to the inflammatory bowel disease (IBD) in dogs. In fact, the IBD treatments in dogs are very similar to those in humans, and the success rates are similarly disappointing; the number of dogs with IBD is estimated to be in the millions in the U.S. Hence for proof of principle for both humans and animals, the authors commenced a trial involving I in seven dogs. A female 10 1/2 yr-old English sheepdog was near death after a 4-mo history of severe IBD. During 6 wk of combined conventional therapy and I (800 mg bid) followed by 6 wk of I (800 mg bid) alone, the dog steadily improved and became clinically normal.

RE.CNT 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT



(FILE 'HOME' ENTERED AT 17:41:09 ON 23 MAY 2006)

FILE 'REGISTRY' ENTERED AT 17:41:51 ON 23 MAY 2006

L1 STRUCTURE UPLOADED

=> d l1

L1 HAS NO ANSWERS

L1 STR

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

Structure attributes must be viewed using STN Express query preparation.

=> s l1

SAMPLE SEARCH INITIATED 17:42:34 FILE 'REGISTRY'

SAMPLE SCREEN SEARCH COMPLETED - 208434 TO ITERATE

1.0% PROCESSED 2000 ITERATIONS 8 ANSWERS
INCOMPLETE SEARCH (SYSTEM LIMIT EXCEEDED)
SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE **INCOMPLETE**
BATCH **INCOMPLETE**
PROJECTED ITERATIONS: 4141959 TO 4195401
PROJECTED ANSWERS: 14942 TO 18406

L2 8 SEA SSS SAM L1

=> s l1 full

FULL SEARCH INITIATED 17:42:42 FILE 'REGISTRY'

FULL SCREEN SEARCH COMPLETED - 4184362 TO ITERATE

20.3% PROCESSED 851369 ITERATIONS (1 INCOMPLETE) 2974 ANSWERS
23.9% PROCESSED 1000000 ITERATIONS (1 INCOMPLETE) 3309 ANSWERS
INCOMPLETE SEARCH (SYSTEM LIMIT EXCEEDED)
SEARCH TIME: 00.00.22

FULL FILE PROJECTIONS: ONLINE **INCOMPLETE**
BATCH **INCOMPLETE**
PROJECTED ITERATIONS: 4184362 TO 4184362
PROJECTED ANSWERS: 13494 TO 14198

L3 3309 SEA SSS FUL L1

=> fil caplus

| COST IN U.S. DOLLARS | SINCE FILE ENTRY | TOTAL SESSION |
|----------------------|------------------|---------------|
| FULL ESTIMATED COST | 167.38 | 167.59 |

FILE 'CAPLUS' ENTERED AT 17:43:14 ON 23 MAY 2006

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<http://www.cas.org/infopolicy.html>

=> s l3/prep

756 L3

3471663 PREP/RL

L4

334 L3/PREP

(L3 (L) PREP/RL)

=> s l4 and alkylation

95821 ALKYLATION

L5

9 L4 AND ALKYLATION

=> d 1-9 bib abs

L5 ANSWER 1 OF 9 CAPLUS COPYRIGHT 2006 ACS on STN

AN 2006:131442 CAPLUS

DN 144:191987

TI Preparation of 2,7-diphenylfluorine derivatives with multiphoton
absorption

IN Ma, Wenbo; Wu, Yiqun; Gu, Donghong; Gan, Fuxi

PA Shanghai Institute of Optics and Fine Mechanics, Chinese Academy of
Sciences, Peop. Rep. China

SO Faming Zhuanli Shenqing Gongkai Shuomingshu, 12 pp.

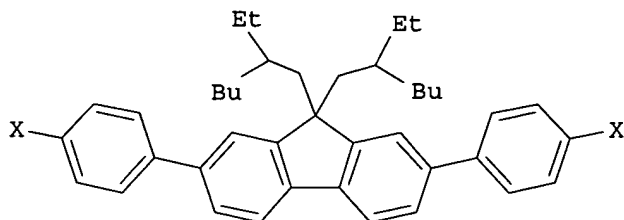
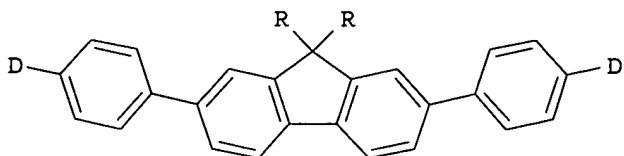
CODEN: CNXXEV

DT Patent

LA Chinese

FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|--|------|----------|------------------|----------|
| PI | CN 1587252 | A | 20050302 | CN 2004-10053305 | 20040730 |
| PRAI | CN 2004-10053305 | | 20040730 | | |
| OS | CASREACT 144:191987; MARPAT 144:191987 | | | | |
| GI | | | | | |



AB Title compds. I [wherein R = alkyl, D = amino group], which have multiphoton absorption, were prepared For instance, **alkylation** of fluorene with 2-ethylhexyl bromide (93%) followed by bromination with bromine in the presence of I2 in dichloromethane (83%) gave a 2,7-dibromide, which underwent Pd-catalyzed Suzuki coupling reaction with phenylboronic acid (65%) to afford II (X = H). Successive bromination of this compound with NBS in a mixture of chloroform and acetic acid (80%) and Ullmann reaction with diphenylamine in the presence of Cu, CuI, KI and 18-crown-6 in 1,2-dichlorobenzene (46%) led to II (X = NPh2). II (X =

NMe2) was similarly prepared and showed three-photon absorption cross-section as high as of $1.06 \times 10^{-76} \text{ cm}^6\text{s}^2$.

L5 ANSWER 2 OF 9 CAPLUS COPYRIGHT 2006 ACS on STN
AN 2005:1039878 CAPLUS
DN 143:477719

TI Synthesis of indenenes by the palladium-catalyzed carboannulation of internal alkynes

AU Zhang, Daohua; Yum, Eul Kgun; Liu, Zhijian; Larock, Richard C.
CS Department of Chemistry, Iowa State University, Ames, IA, 50011, USA
SO Organic Letters (2005), 7(22), 4963-4966
CODEN: ORLEF7; ISSN: 1523-7060

PB American Chemical Society

DT Journal

LA English

AB A number of highly substituted indenenes have been prepared in good yields by treating functionally substituted aryl halides with various internal alkynes in the presence of a palladium catalyst. The reaction is believed to proceed by regioselective arylpalladation of the alkyne and subsequent nucleophilic displacement of the palladium in the resulting vinylpalladium intermediate.

RE.CNT 36 THERE ARE 36 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 3 OF 9 CAPLUS COPYRIGHT 2006 ACS on STN
AN 2005:183906 CAPLUS
DN 142:411051

TI The synthesis, structural characterization and photochemistry of some 3-phenylindenones

AU Seery, Michael K.; Draper, Sylvia M.; Kelly, John M.; McCabe, Thomas; McMurtry, T. Brian H.

CS Chemistry Department, Trinity College, Dublin, 2, Ire.

SO Synthesis (2005), (3), 470-474

CODEN: SYNTBF; ISSN: 0039-7881

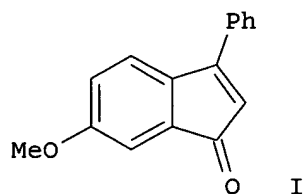
PB Georg Thieme Verlag

DT Journal

LA English

OS CASREACT 142:411051

GI



AB The synthesis of 3-phenylindenone, 6-methoxy-3-phenylindenone (I), 2-bromo-6-methoxy-3-phenylindenone, and 2-ethoxycarbonyl-6-methoxy-3-phenylindenone is described using two methods - synthesis via indanone precursors and synthesis via propanedione precursors. Crystal structures of 2-bromo-6-methoxy-3-phenylindenone and 2-bromo-6-methoxy-3-phenylindenone were obtained. Preliminary photochem. studies showed that I dimerized readily, but no transient species were detectable using ns-flash photolysis.

RE.CNT 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 4 OF 9 CAPLUS COPYRIGHT 2006 ACS on STN
AN 2005:124940 CAPLUS
DN 142:373930

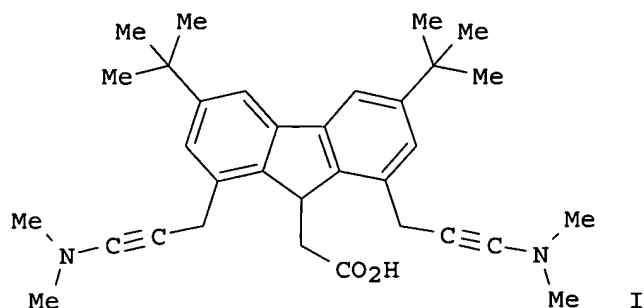
TI Synthesis and molecular structures of zirconium and hafnium complexes bearing dimethylsilandiyl-bis-2,4,6-trimethylindenyl and dimethylsilandiyl-bis-2-methyl-4,6-diisopropylindenyl ligands

AU Izmer, Vyacheslav V.; Sorokin, Denis A.; Kuz'mina, Lyudmila G.; Churakov,

Andrei V.; Howard, Judith A. K.; Voskoboynikov, Alexander Z.
 CS Department of Chemistry, Moscow State University, Moscow, 119899, Russia
 SO Journal of Organometallic Chemistry (2005), 690(4), 1067-1079
 CODEN: JORCAI; ISSN: 0022-328X
 PB Elsevier B.V.
 DT Journal
 LA English
 OS CASREACT 142:373930
 AB Zirconium and hafnium ansa-complexes containing 2,4,6-trialkyl-substituted indenyl fragments were prepared and structurally characterized. Mixts. of rac- and meso-Me₂Si(2-Me-4,6-R₂C₉H₃-η⁵)₂MC₂ (R = Me, iPr; M = Zr, Hf) were obtained by a treatment of MCl₄ by dilithium salts of the resp. bis(2,4,6-trialkylindenyl)dimethylsilanes in toluene. Alternatively, better yields of the same complexes can be obtained by the reaction between metal tetrachlorides and indenyl-tin derivs. 1,1'-(Et₃Sn)₂-Me₂Si(2-Me-4,6-R₂C₉H₃) gave the desired ansa-metallocenes. All rac- and meso-complexes of Zr and Hf were isolated in an anal. pure form, and six of these ansa-metallocenes were characterized by x-ray crystal structure anal.

RE.CNT 19 THERE ARE 19 CITED REFERENCES AVAILABLE FOR THIS RECORD
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 5 OF 9 CAPLUS COPYRIGHT 2006 ACS on STN
 AN 2005:74979 CAPLUS
 DN 142:297855
 TI Synthesis of a constrained ligand comprising carboxylate and amine donor groups via direct 1,8-functionalization of positionally protected fluorene
 AU Burdinski, Dirk; Cheng, Karen; Lippard, Stephen J.
 CS Department of Chemistry, Massachusetts Institute of Technology, Cambridge, MA, 02139, USA
 SO Tetrahedron (2005), 61(6), 1587-1594
 CODEN: TETRAB; ISSN: 0040-4020
 PB Elsevier B.V.
 DT Journal
 LA English
 OS CASREACT 142:297855
 GI

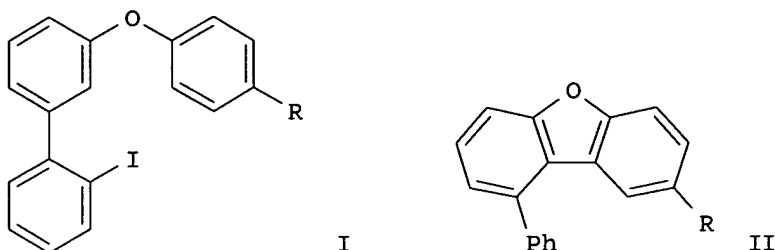


AB The synthesis of 1,8-bis(dimethylaminomethylethynyl)-3,6-di(tert-butyl)fluorene-9-yl-acetic acid (I), a potentially dinucleating ligand containing two N-donor and bridging carboxylate groups, is described. The electronically disfavored 1,8-disubstitution of the fluorene ring system was achieved by using tert-Bu protecting groups in the 3- and 6-positions of the fluorene mol. in combination with mercury(II) as a sterically demanding electrophile. The straightforward synthesis of a 1,8-diiodofluorene derivative provided simple general access to 1,8-disubstituted fluorene mols.

RE.CNT 57 THERE ARE 57 CITED REFERENCES AVAILABLE FOR THIS RECORD
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 6 OF 9 CAPLUS COPYRIGHT 2006 ACS on STN
 AN 2004:890612 CAPLUS
 DN 142:56089
 TI Synthesis of Fused Polycycles by 1,4-Palladium Migration Chemistry

AU Huang, Qinhua; Campo, Marino A.; Yao, Tuanli; Tian, Qingping; Larock, Richard C.
 CS Department of Chemistry, Iowa State University, Ames, IA, 50011, USA
 SO Journal of Organic Chemistry (2004), 69(24), 8251-8257
 CODEN: JOCEAH; ISSN: 0022-3263
 PB American Chemical Society
 DT Journal
 LA English
 OS CASREACT 142:56089
 GI



AB Novel palladium migration/arylation methodol. for the synthesis of complex fused polycycles has been developed, in which one or more sequential Pd-catalyzed intramol. migration processes involving C-H activation are employed. The chemical works best with electron-rich aroms., which is in agreement with the idea that these palladium-catalyzed C-H activation reactions parallel electrophilic aromatic substitution. For example, Pd(OAc)₂-catalyzed intramol. arylation of diaryl ethers I (R = H, Cl) in the presence of cesium pivalate gave the unsym. dibenzofurans II in 82-89% yields.

RE.CNT 51 THERE ARE 51 CITED REFERENCES AVAILABLE FOR THIS RECORD
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 7 OF 9 CAPLUS COPYRIGHT 2006 ACS on STN
 AN 2004:454857 CAPLUS
 DN 141:173962

TI Synthesis of C₃ benzo[1,2-e:3,4-e':5,6-e'']tribenzo[l]acephenanthrylenes (crushed fullerene derivatives) by intramolecular palladium-catalyzed arylation

AU Gomez-Lor, Berta; Gonzalez-Cantalapiedra, Esther; Ruiz, Marta; De Frutos, Oscar; Cardenas, Diego J.; Santos, Amelia; Echavarren, Antonio M.
 CS Instituto de Ciencia de Materiales de Madrid, Madrid, 28049, Spain
 SO Chemistry--A European Journal (2004), 10(10), 2601-2608
 CODEN: CEUJED; ISSN: 0947-6539

PB Wiley-VCH Verlag GmbH & Co. KGaA
 DT Journal
 LA English
 OS CASREACT 141:173962

AB Several C₆₀ polyarenes were synthesized from truxene by triple **alkylation** at C-5, C-10, and C-15 followed by a palladium-catalyzed intramol. arylation. The synthesis of the crushed fullerene benzo[1,2-e:3,4-e':5,6-e'']tribenzo[l]acephenanthrylene (C₆₀H₃₀) is the most efficient reported to date and proceeds in 33% overall yield.

RE.CNT 47 THERE ARE 47 CITED REFERENCES AVAILABLE FOR THIS RECORD
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 8 OF 9 CAPLUS COPYRIGHT 2006 ACS on STN
 AN 2004:213737 CAPLUS
 DN 140:406897

TI Highly stereoregular syndiotactic polypropylene formation with metallocene catalysts via influence of distal ligand substituents

AU Miller, Stephen A.; Bercaw, John E.
 CS Arnold and Mabel Beckman Laboratories of Chemical Synthesis, California Institute of Technology, Pasadena, CA, 91125, USA
 SO Organometallics (2004), 23(8), 1777-1789
 CODEN: ORGND7; ISSN: 0276-7333

PB American Chemical Society

DT Journal

LA English

OS CASREACT 140:406897

AB Highly stereoregular syndiotactic polypropylene is obtained with the catalyst systems $\text{Ph}_2\text{C}(\eta^5\text{-Oct})(\eta^5\text{-C}_5\text{H}_4)\text{ZrCl}_2/\text{MAO}$ (8/MAO; Oct = 1,1,4,4,7,7,10,10-octamethyloctahydro-12H-dibenzo[b,h]fluoren-12-yl; MAO = methylaluminoxane) and $\text{Me}_2\text{C}(\text{Oct})(\text{C}_5\text{H}_4)\text{ZrCl}_2/\text{MAO}$ (12/MAO). The syndiotactic polypropylenes obtained are largely devoid of stereoerrors by ^{13}C NMR anal. ($[\text{r}] > 98\%$), and high melting temps. (about $153\text{-}154^\circ$ from 8 and 12, resp.) are found for the thermally quenched polymers without annealing. A related hafnium catalytic system, $\text{Ph}_2\text{C}(\text{Tet})(\text{C}_5\text{H}_4)\text{HfCl}_2/\text{MAO}$ (11/MAO; Tet = 1,1,4,4-tetramethyltetrahydrobenzo[b]fluorenyl), was found to be the most syndioselective of the hafnocenes tested (m.p. 141°). The metallocene dichloride precatalysts represent the first examples of transition metal complexes containing the Oct or Tet ligands. The solid state crystal structures of 8, the protonated ligand precursor of 8 ($\text{Ph}_2\text{C}(\text{OctH})(\text{C}_5\text{H}_5)$), and the zirconium analog of 11, $\text{Ph}_2\text{C}(\text{Tet})(\text{C}_5\text{H}_4)\text{ZrCl}_2$ (10) are reported. A dramatic effects of distal ligands on polymer stereochem. are demonstrated.

RE.CNT 66 THERE ARE 66 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 9 OF 9 CAPLUS COPYRIGHT 2006 ACS on STN

AN 2003:491620 CAPLUS

DN 139:179942

TI Synthesis of Constrained Raloxifene Analogues by Complementary Use of Friedel-Crafts and Directed Remote Metalation Reactions

AU Kalinin, Alexey V.; Reed, Mark A.; Norman, Bryan H.; Snieckus, Victor

CS Department of Chemistry, Queen's University, Kingston, ON, K7L 3N6, Can.

SO Journal of Organic Chemistry (2003), 68(15), 5992-5999

CODEN: JOCEAH; ISSN: 0022-3263

PB American Chemical Society

DT Journal

LA English

OS CASREACT 139:179942

GI

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB New constrained heterocyclic analogs of Raloxifene, I [$\text{R}_1 = 2\text{-(1-piperidinyl)ethoxy}$, $\text{R}_2 = \text{H}$; $\text{R}_1 = \text{H}$, $\text{R}_2 = 2\text{-(1-piperidinyl)ethoxy}$] and II, were prepared by complementary Directed remote Metalation (DreM)/Friedel-Crafts cyclization approaches. Utilization of a benzylidene-thiolactone rearrangement was successfully implemented to construct benzothiophenes III ($\text{R}_3 = \text{Me}_2\text{CH}$, $\text{R}_4 = \text{MeO}$; $\text{R}_3 = \text{Me}$, PhCH_2 , $\text{R}_4 = \text{Et}_2\text{N}$) in good yields. Selective deprotection of III ($\text{R}_3 = \text{Me}_2\text{CH}$, $\text{R}_4 = \text{MeO}$; $\text{R}_3 = \text{PhCH}_2$, $\text{R}_4 = \text{Et}_2\text{N}$) induced by complexation was followed by trifluoromethylsulfonylation and Suzuki-Miyaura cross coupling with 3-[2-(1-piperidinyl)ethoxy]phenyl dioxaborolane to give the corresponding 2,4-diaryl-substituted benzothiophenes with methoxycarbonyl or diethylcarbamoyl group in the 3 position. Treatment of the latter with BCl_3 or with excess LDA induced an intramol. para or ortho cyclization and concomitant double deprotection to furnish I. Similar sequence starting from III ($\text{R}_3 = \text{Me}$, $\text{R}_4 = \text{Et}_2\text{N}$) afforded the constrained analog II.

RE.CNT 30 THERE ARE 30 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

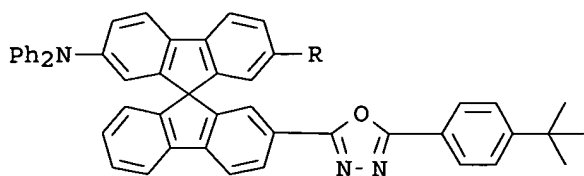
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42980 GRIGNARD

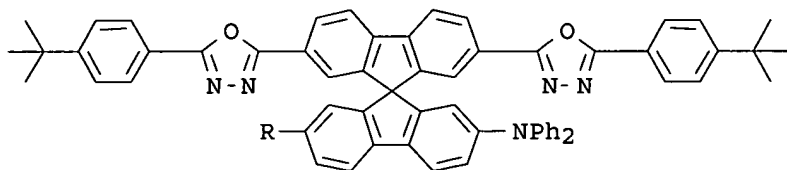
L6 5 L4 AND GRIGNARD

=> d 1-4 bib abs

L6 ANSWER 1 OF 5 CAPLUS COPYRIGHT 2006 ACS on STN
 AN 2005:1324612 CAPLUS
 DN 144:243237
 TI Synthesis, Structures, and Photoinduced Electron Transfer Reaction in the
 9,9'-Spirobifluorene-Bridged Bipolar Systems
 AU Wong, Ken-Tsung; Ku, Sung-Yu; Cheng, Yi-Ming; Lin, Xiauo-Yun; Hung,
 Ying-Yueh; Pu, Shih-Chieh; Chou, Pi-Tai; Lee, Gene-Hsiang; Peng, Shie-Ming
 CS Department of Chemistry, National Taiwan University, Taipei, 106, Taiwan
 SO Journal of Organic Chemistry (2006), 71(2), 456-465
 CODEN: JOCEAH; ISSN: 0022-3263
 PB American Chemical Society
 DT Journal
 LA English
 GI



I



II

AB A series of 9,9'-spirobifluorene-bridged bipolar compds. DnAm bearing various n:m ratios for triarylamine (D) vs. 1,3,4-oxadiazole-conjugated oligoaryl moiety (A) have been synthesized to investigate the corresponding photoinduced electron transfer (PET) property. The excitation behaviors were probed by steady-state absorption, emission, fluorescence solvatochromism, and femtosecond fluorescence up-conversion spectroscopy. The overall reaction dynamics can be rationalized by the rate of PET, in combination with solvent relaxation dynamics. It was found that the rate of PET is dependent on the anchored D/A ratio. The rate of D1A1 (I: R = H) and D2A1 (I: R = NPh₂) was resolved to be .apprx.2.44 + 10¹² and 2.32 + 10¹² s⁻¹, resp., while it is irresolvable in D1A2 (II: R = H) and D2A2 (II: R = NPh₂) (>6.6 + 10¹² s⁻¹). In another approach, based on the comprehensive x-ray data, cyclic voltammetry, and absorption/emission spectra, the rate of photoinduced electron transfer was also qual. estimated. Fair comparisons were made between exptl. and theor. approaches to gain detailed insight into the PET for the titled systems.

RE.CNT 43 THERE ARE 43 CITED REFERENCES AVAILABLE FOR THIS RECORD
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 2 OF 5 CAPLUS COPYRIGHT 2006 ACS on STN
 AN 2005:488943 CAPLUS
 DN 143:172617
 TI Efficient routes to acenaphthylene-fused polycyclic arenes/heteroarenes
 and heterocyclic fluoranthene analogues
 AU Panda, Kausik; Venkatesh, Chelvam; Ila, Hiriyakkanavar; Junjappa,
 Hiriyakkanavar
 CS Department of Chemistry, Indian Institute of Technology, Kanpur, 208016,
 India

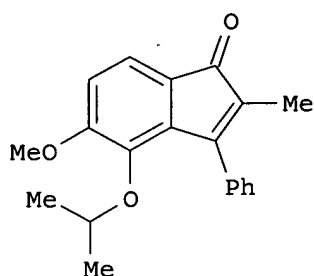
SO European Journal of Organic Chemistry (2005), (10), 2045-2055
 CODEN: EJOCFK; ISSN: 1434-193X
 PB Wiley-VCH Verlag GmbH & Co. KGaA
 DT Journal
 LA English
 OS CASREACT 143:172617
 AB 2-Bis(methylthio)methyleneacenaphthenone (I) was subjected to various [3 + 3] aromatic and heteroarom. annulation and other heterocyclization reactions, providing short and efficient routes to a diverse range of known and unknown acenaphtho-annulated linear and angular PAHs, heteroaroms. and five-membered heterocycles in good yields. Thus, benzo- and naphthoannulation of I with various allyl and benzyl Grignard reagents afforded substituted fluoranthenes and benzo[k]fluoranthene in good yields. Similarly, benzo[j]fluoranthene and a substituted derivative were synthesized by base-induced conjugate 1,4-addition of arylacetonitriles to I, followed by acid-induced cyclization of the conjugate adducts and subsequent further transformations. The adducts obtained by 1,4-addition of anions derived from acetophenone and acenaphthenone were subjected to heterocyclization in the presence of ammonium acetate to give 8-arylacenaphtho[1,2-b]pyridines and bis(acenaphtho)-annulated pyridine. Heterocyclization of I with bifunctional nucleophiles such as 2-picolyllithium and guanidinium nitrate afforded the corresponding acenaphtho[1,2-b]quinolizinium salt and acenaphtho[1,2-d]pyrimidine in high yields. Finally, acenaphtho[1,2-c]-fused five-membered heterocycles such as 7-(methylthio)acenaphtho[1,2-c]thiophene, 7-(methylthio)acenaphtho[1,2-c]furan and 7-(methylthio)acenaphtho[1,2-c]pyrrole-2-carboxylic acid were obtained in good yields by subjection of I to Simmons-Smith reaction conditions or by treatment with dimethylsulfonium methylide or glycinate dianion. Some of these newly synthesized PAHs or fused heterocycles were subjected to Raney Ni desulfurization to furnish sulfur-free compds.

RE.CNT 88 THERE ARE 88 CITED REFERENCES AVAILABLE FOR THIS RECORD
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 3 OF 5 CAPLUS COPYRIGHT 2006 ACS on STN
 AN 2005:277468 CAPLUS
 DN 142:481811
 TI Towards benign synthesis of indenenes from indanones: zinc-mediated allylation of ketones in aqueous media as a source of substituted indenyl ligand precursors
 AU Silver, Satu; Leppanen, Ann-Sofie; Sjoeholm, Rainer; Penninkangas, Antti; Leino, Reko
 CS Department of Organic Chemistry, Abo Akademi University, Turku, 20500, Finland
 SO European Journal of Organic Chemistry (2005), (6), 1058-1081
 CODEN: EJOCFK; ISSN: 1434-193X
 PB Wiley-VCH Verlag GmbH & Co. KGaA
 DT Journal
 LA English
 OS CASREACT 142:481811
 AB Substituted indenenes are valuable ligand precursors for transition-metal complexes. Previously, most of the methods employed for the preparation of alkyl-substituted indenenes have involved the use of air-sensitive organometallic lithium or Grignard reagents, often in combination with expensive metal catalysts. An approach to the synthesis of 2- and 3-allyl-substituted indenenes by employing a simple, environmentally benign organometallic zinc-mediated Barbier-type allylation of 1- and 2-indanones in aqueous media is reported. A large series of achiral and racemic indenyl ligand precursors have been prepared in variable yields by reacting substituted and unsubstituted indanones with allyl-, crotyl-, and cinnamyl halides using metallic zinc as the mediating metal in THF/NH4Cl aq followed by acid-catalyzed dehydration. The method described is applicable also for indanones containing unprotected halide- and hydroxyl substituents. As an example of extension of the approach, some indenenes have been further hydrosilylated with achiral silanes and disilanes in the presence of Karstedt's catalyst to provide silylalkyl-substituted indenenes and bis(indenenes). Hydrosilylation with a chiral silane, (+)-(R)-methyl-1-naphthalenyl-phenylsilane, provided access to chirally substituted indenenes.

RE.CNT 110 THERE ARE 110 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 4 OF 5 CAPLUS COPYRIGHT 2006 ACS on STN
AN 2005:196434 CAPLUS
DN 142:411026
TI Tandem catalysis: a ring-closing metathesis followed by dehydrogenative
oxidation to afford substituted indenones
AU Van Otterlo, Willem A. L.; Cohanis, E. Mabel; Panayides, Jenny-Lee; De
Koning, Charles B.; Fernandes, Manuel A.
CS Molecular Sciences Institute, School of Chemistry, University of the
Witwatersrand, Johannesburg, S. Afr.
SO Synlett (2005), (3), 501-505
CODEN: SYNLES; ISSN: 0936-5214
PB Georg Thieme Verlag
DT Journal
LA English
OS CASREACT 142:411026
GI



I

AB Grubbs second generation catalyst converted substituted
1-(2-propenylphenyl)prop-2-en-1-ols into substituted indenols or
indenones, e.g., I, depending on the reaction conditions employed. The
formation of indenones represents an example of a tandem
ruthenium-mediated ring-closing metathesis-dehydrogenative oxidation
reaction.

RE.CNT 48 THERE ARE 48 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> s l4 and lithium alkyl

306364 LITHIUM

567786 ALKYL

539 LITHIUM ALKYL

(LITHIUM(W)ALKYL)

L7 0 L4 AND LITHIUM ALKYL

=> s l4 and metal alkyl

1647479 METAL

567786 ALKYL

1740 METAL ALKYL

(METAL(W)ALKYL)

L8 0 L4 AND METAL ALKYL

=> s l4 and alkyl zinc

567786 ALKYL

584568 ZINC

114 ALKYL ZINC

(ALKYL(W)ZINC)

L9 0 L4 AND ALKYL ZINC